

JANUARY 1991

# AIR QUALITY SOLID WASTE ASSESSMENT TEST REPORT

NAVAL AIR STATION ALAMEDA ALAMEDA, CALIFORNIA

DEPARTMENT OF THE NAVY
WESTERN DIVISION

NAVAL FACILITIES ENGINEERING COMMAND
SAN BRUNO, CALIFORNIA 94066-0727

## AIR QUALITY SOLID WASTE ASSESSMENT TEST NAVAL AIR STATION ALAMEDA ALAMEDA, CALIFORNIA

## Prepared For:

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<u>Transmittal</u>
Air Quality Solid Waste Assessment Test
Naval Air Station Alameda
Alameda, California

Dear Ms. Dizon:

Enclosed are twenty copies of the Final Air Quality Solid Waste Assessment Test report performed at Naval Air Station Alameda. This transmittal fulfills the requirements for Delivery Order No. 0007 under Contract No. N62474-85-D-5620.

Very truly yours,

wames W. Babcock, Ph.D.

James W. John

Project Manager

JWB/rr

**Enclosure** 

cc: T. Bodkin, Canonie Environmental Services Corp.

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#### SECTION 1.0

#### INTRODUCTION

This Air Quality Solid Waste Assessment Test (Air SWAT) Report has been prepared for the West Beach Landfill and the 1943 to 1956 Disposal Area at the Naval Air Station Alameda in Alameda, California (NAS-Alameda). Specifically, this report describes and presents the results of the activities conducted at these sites to comply with California Health & Safety Code 41805.5 (HSC 41805.5).

Prior to performing the Air SWAT, the Department of the Navy, Western Division, Naval Facilities Engineering Command (Navy) participated in discussions with the Bay Area Air Quality Management District (BAAQMD) regarding HSC 41805.5. During the course of these discussions the BAAQMD indicated that for the purposes of the Air SWAT, the West Beach Landfill and the 1943 to 1956 Disposal Area were to be considered as one site and that the testing requirements were to be the same as those for hazardous waste sites. As a result of these discussions a single Air SWAT Monitoring Plan (SCS, 1989) describing the proposed Air SWAT program was prepared for both sites. This plan was submitted to and approved by the BAAQMD before initiation of testing activities.

All field and laboratory activities conducted during the Air SWAT were performed in accordance with the State of California Air Resources Board (ARB) "Hazardous Waste Disposal Site Testing Guidelines" (ARB, 1987) and the BAAQMD approved monitoring plan (SCS, 1989). Site histories and background are described in detail in the Air SWAT monitoring plan. A site location map is presented on Figure 1-1.

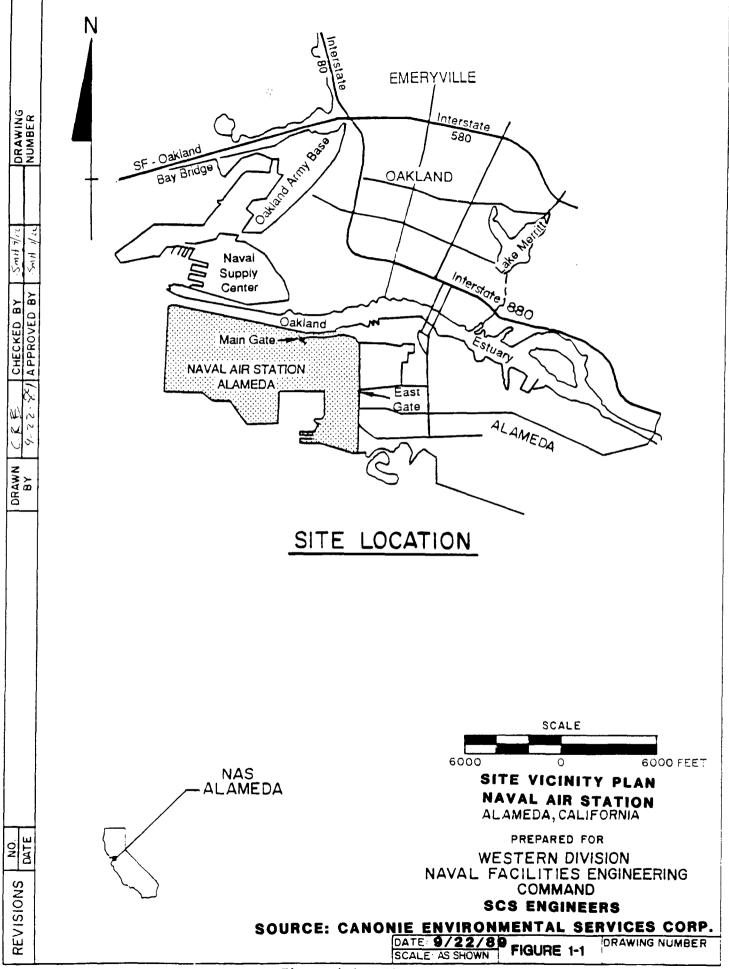


Figure 1-1. Site Map

#### SECTION 2.0

#### ASSESSMENT METHODOLOGY

The Air SWAT was performed at the NAS-Alameda sites in June and July 1990. All sampling equipment and sample storage containers were constructed of chemically inert materials to prevent sample contamination. All samples were protected from sunlight to prevent possible photochemical reactions and were analyzed within 72 hours. All sampling and analytical methodology conformed with criteria established in the Guidelines (ARB, 1987) and described in the BAAQMD approved Monitoring Plan (SCS, 1989).

The Air SWAT monitoring activities conducted at the NAS-Alameda sites are described in the following subsections.

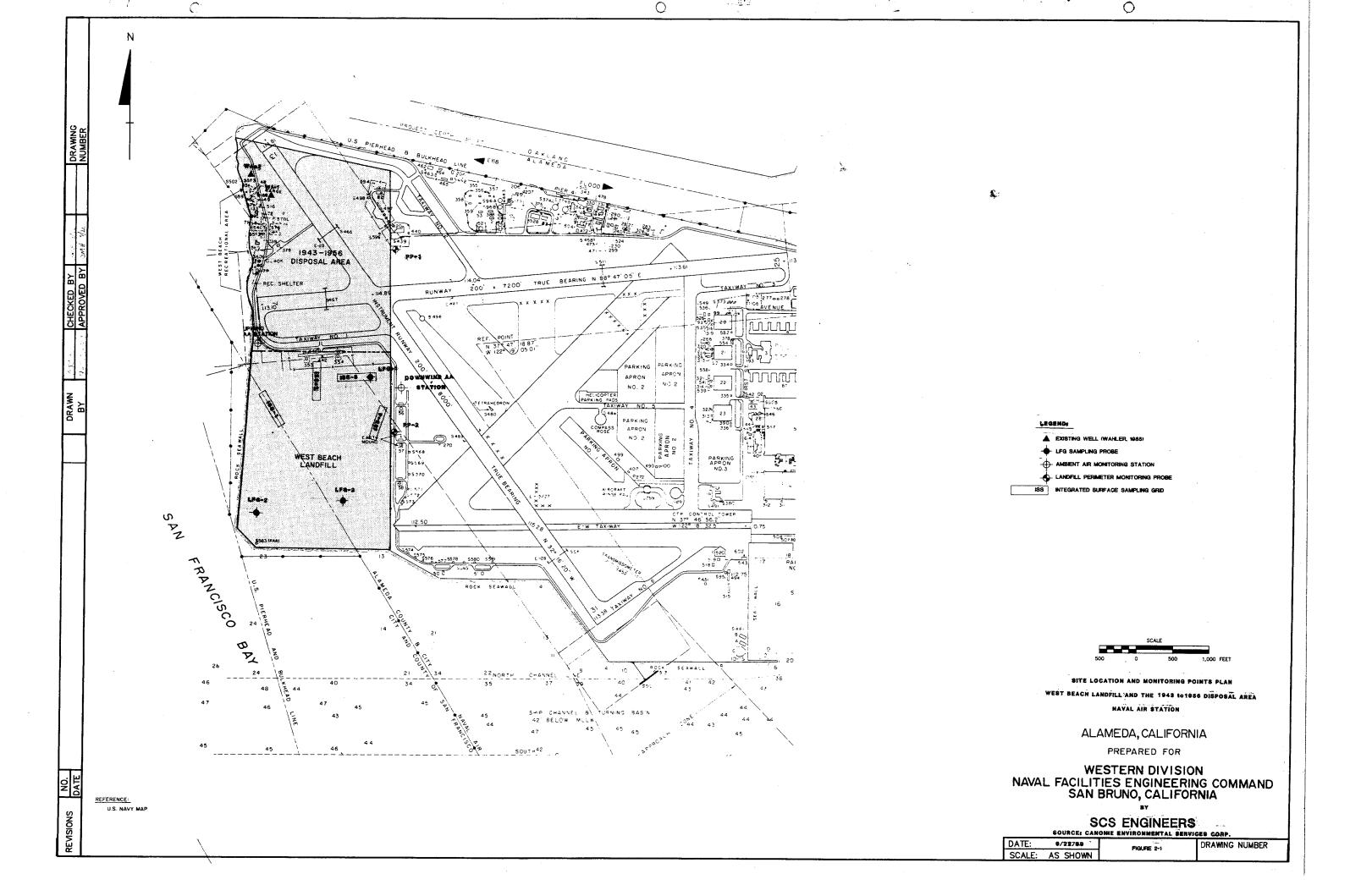
#### 2.1 INTERNAL GAS CHARACTERIZATION

Five LFG samples were collected to measure the composition of the gas streams within the sites. Two samples were collected from existing wells (WA-1 and WA-2) and three samples were collected from probes installed by SCS on June 22, 1990. In the monitoring plan, wells WA-2 and 11 GW were originally designated as the existing wells to be used for LFG characterization. Once field activities began it became evident that well 11 GW no longer existed. Upon consultation with BAAQMD staff well WA-1 was selected to replace well 11 GW in the sampling program. LFG sampling well and probe locations are shown on Figure 2-1. LFG samples were collected from well WA-1 on June 26, 1990 and from well WA-2 and the probes on July 3, 1990. Prior to sampling each well or probe was purged of at least two well or probe volumes of LFG. A sample was then withdrawn into a 10-liter Tedlar bag enclosed in a light sealed box. The samples were transported along with a field blank to the laboratory via chain-of-custody procedures where they were analyzed for concentrations of methane, carbon dioxide, nitrogen, oxygen, and the 10 specified air contaminants (SACs) listed in Attachment 1 of the Guidelines (ARB, 1987).

#### 2.2 INTEGRATED SURFACE SAMPLING

On June 25, 1990 integrated surface samples were collected immediately above four separate 50,000 square foot grids laid out on the landfill's surface. Grid locations are shown on Figure 2-1. These grid locations were chosen by the BAAQMD. The samples were collected 3 inches above the ground surface along the standard sampling pattern recommended in the ARB Guidelines. The samples were pumped into 10-liter Tedlar bags enclosed in light sealed boxes.

The samples were transported along with a field blank to the laboratory via chain-of-custody procedures where they were analyzed for concentrations of methane and the 10 SACs. During the sampling periods, wind speed and direction were continuously recorded to verify that the meteorological conditions set forth in the ARB Guidelines were met.



#### 2.3 AMBIENT AIR MONITORING

Ambient air monitoring was conducted up and downwind of the sites from June 20, 1990 to July 3, 1990. A total of 47 (20 upwind and 27 downwind) samples were collected over 10 separate 24-hour sampling periods. Two samples, one upwind and one downwind, were collected each day with controlled samplers programmed to collect ambient air samples only when wind direction was within the desired sampling sector. Ambient air sampling locations are shown on Figure 2-1. All samples were pumped into 10-liter Tedlar bags enclosed in light sealed boxes. The samples were transported daily, along with a field blank to the laboratory where they were analyzed for concentrations of the 10 SACs. During the sampling periods, wind speed and direction were continuously recorded to verify that the meteorological conditions set forth in the ARB Guidelines were met.

#### 2.4 LANDFILL GAS MIGRATION MONITORING

On June 22, 1990 two landfill perimeter monitoring probes were installed at the eastern perimeter of the NAS-Alameda sites at the locations indicated on Figure 2-1. These locations were chosen by the BAAQMD. Soil gas samples were collected from the probes on July 3, 1990. Prior to sampling each probe was purged of at least two probe volumes of soil gas. A sample was then withdrawn into a 10-liter Tedlar bag enclosed in a light sealed box. The samples were transported along with a field blank to the laboratory via chain-of-custody procedures where they were analyzed for concentrations of methane, carbon dioxide, nitrogen, oxygen and the 10 SACs.

#### SECTION 3.0

#### ASSESSMENT RESULTS

The results of the Air SWAT are presented in the following subsections.

#### 3.1 INTERNAL GAS CHARACTERIZATION

Analysis of the internal LFG samples indicate that very little LFG is still being generated within the NAS-Alameda sites. All of the samples collected consisted mainly of nitrogen and oxygen, the primary components of air. A small amount of methane (3 %) was detected in the sample collected from probe LFG-1, indicating that some minor LFG generation may be taking place in that area of the site. Trace quantities of two of the SACs were observed in the sample collected from well WA-2; trichloroethylene at a concentration of 39 parts per billion, by volume (ppb) and trichloromethane at a concentration of 9.4 ppb. No SACs were detected in any of the other internal gas characterization samples. The apparent low LFG generation rate is consistent with that typical for landfills of the age and moisture content of the NAS-Alameda sites.

Internal gas characterization data are presented in Table 3-1. Laboratory analytical reports are presented in Appendix A.

#### 3.2 INTEGRATED SURFACE SAMPLING

No methane was detected in any of the four integrated surface samples. Only two of the SACs were observed, both in trace concentrations. Tetrachloromethane was observed at a concentration of 0.2 ppb (the detection limit) in integrated surface sample ISS-2, and dichloromethane was observed at a concentration of 1.2 ppb in integrated surface sample ISS-3. Neither of these SACs were detected in any of the internal gas characterization samples.

Integrated surface sampling data are presented in Table 3-2. Field data sheets and laboratory analytical reports are presented in Appendix B.

#### 3.3 AMBIENT AIR MONITORING

Of the 10 SACs, three were observed in the ambient air samples. Dichloromethane was detected at concentrations ranging from 1.1 to 4.2 ppb in samples collected during five of the 10 sampling periods. Tetrachloroethene was detected at concentrations ranging from the detection limit of 0.2 ppb to 0.7 ppb during eight sampling periods. 1,1,1-Trichloroethane was detected at concentrations ranging from the detection limit of 0.5 ppb to 3.3 ppb during seven sampling periods. All three SACs were observed in both upwind and downwind samples at roughly equivalent concentrations. There is no discernable emission pattern for any of the three detected SACs in the collected data. None of the SACs detected in the ambient air samples were observed in any of the internal gas characterization samples.

TABLE 3-1. INTERNAL GAS CHARACTERIZATION DATA

Well	WA - 1	WA-2	LFG-1	LFG-2	LFG-3	Field Blank
Date	6/26/90	7/3/90	7/3/90	7/3/90	7/3/90	7/3/90
Sample Number	WA1-26	WA2-3	LFG-1	LFG-2	LFG-3	(2)6A & 6B

	Detection Limit							
Constituent	(ppb)*	Concentr	ation (pp	b)				
Chloroethene	500	ND	ND	ND	ND	ND	ND	ND
Benzene	500	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	1	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	20	ND	ND	ND	ND	ND	ND	ND
Dichloromethane	60	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	10	ND	ND	ND	ND	ND	ND	ND
Tetrachloromethane	5	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	10	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene	10	ND	39	ND	ND	ND	ND	ND
Trichloromethane	2	ND	9.4	ND	ND	ND	ND	ND

Constituent	Detection Limit (%)**	Conce	entration	(%)				
0xygen	0.5	21	16	5.5	19	21	0.5	0.6
Nitrogen	0.5	79	79	70.4	78	79	1.2	0.7
Carbon Monoxide	0.5	ND	ND	ND	ND	ND	ND	ND
Carbon Dioxide	0.5	ND	4.4	15	1.3	0.2	ND	ND
Methane	0.5	ND	ND	3.0	ND	ND	ND	ND

ND = Not detected

\* Parts per billion, by volume

\*\* Percent, by volume

TABLE 3-2. INTEGRATED SURFACE SAMPLING DATA

June 25, 1990 Date: Sample Grid ISS 2 ISS 3 ISS 4 Field Blank Sample Time 0830 to 0900 0630 to 0700 0715 to 0745 0750 to 0820 N/A Wind Speed 0 to 5 0 to 5 0 to 5 0 to 5 N/A Range (mph)

Constituent	Detection Limit (ppb)*		Concentration	(dad)		
	2.0			N.S.		
Chloroethene	2.0	ND	ND	ND	ND	ND
Benzene	2.0	ND	ND	ND	ND	ND
1,2-Dibromoethane	0.5	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.2	ND	ND	ND	ND	ND
Dichloromethane	1.0	ND	ND	1.2	ND	ND
Tetrachloroethene	0.2	ND	0.2	ND	ND	ND
Tetrachloromethane	0.2	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	0.5	ND	ND	ND	ND	ND
Trichloroethylene	0.6	ND	ND	ND	ND	ND
Trichloromethane	0.8	ND	ND	ND	ND	ND

Constituent	Detection Limit (%)**		Concentration (%)			
Methane	0.5	ND	ND	ND	ND	ND

ND = Not detected

<sup>\*</sup> Parts per billion, by volume \*\* Percent, by volume

Ambient air monitoring data are presented in Table 3-3. Field data sheets and laboratory analytical reports are presented in Appendix C. Wind speed and wind direction data are presented in Appendix D.

#### 3.4 LANDFILL GAS MIGRATION MONITORING

Both of the soil gas samples collected from the two landfill perimeter monitoring probes consisted mainly of nitrogen and oxygen, the primary components of air. No methane was detected in either of the soil gas samples. A trace quantity (4.9 ppb) of trichloromethane was observed in the soil gas sample collected from probe PP-2. Trichloromethane was detected in the internal LFG sample collected from well WA-2 at a concentration of 9.4 ppb. No other SACs were observed in either soil gas sample.

Landfill gas migration monitoring data are presented in Table 3-4. Laboratory analytical reports are presented in Appendix E.

TABLE 3-3. AMBIENT AIR MONITORING DATA

	Date			June 20 to June 21					June 21 to June 22					June 23 to June 24				
	Wind Speed Range (miles per hour)			2	2.5 to	20				.5 to 2			2 to 18 West Southwest To					
	Prevailing Wind Dire	ction		Wes	t Nort	hwest		West Southwest To West Northwest				West SouthWest To North NorthWest						
	Sampler Location		<u>Up</u>	wind	Downwind					Downwind	Upwind			Downwind				
	Sampler Type		24 Hour	Controlled	24 Hour	Controlled	Co-lo <sup>(3)</sup> cated	24 Hour	Controlled	24 Kour	Controlled	Co-lo <sup>(3)</sup> cated	24 Hour	Controlled	24 Hour	Controlled	Co-lo <sup>(3)</sup> cated	
	Sample Number		2A-21	4A-21	1A-21	3B-21	-	2A-22	4B-22	1A-22	3B-22	-	2A-24	4A-24	1A-24	3A-24	-	
	Sample Time		0800	0800	0800	0800	•	0800	0800	0800	0800	-	1500	1500	1500	1500	-	
	Start/Stop		0800	0800	0800	0800	-	0800	0800	0800	0800	-	1500	1500	1500	1500	-	
3-	Constituent Li	tection mit (ppb) <sup>(1</sup>	<u> </u>				Conce	entratio	on (ppb, by	volume	)							
-5	Chloroethene	2	ND (2	) <sub>ND</sub>	ND	ND	•	ND	ND	ND	ND	-	ND	ND	ND	ND	-	
	Benzene	2	ND	ND	ND	ND	-	ND	ND	ND	ND	-	ND	ND	ND	ND	-	
	1,2-Dibromoethane	0.5	ND	ND	ND	ND	-	ND	ND	ND	ND	-	ND	ND	ND	ND	-	
	1,2-Dichloroethane	0.2	ND	ND	ND	ND	-	ND	NÐ	ND	ND	•	ND	ND	ND	ND	-	
	Dichloromethane	1	ND	ND	ND	ND	-	ND	NÐ	2.5	ND	-	ND	ND	ND	ND	-	
	Tetrachloroethene	0.2	ND	ND	0.2	ND	-	ND	ND	0.2	0.2	-	ND	ND	ND	ND	-	
	Tetrachloromethane	0.2	ND	ND	ND	ND	-	ND	ND	ND	ND	•	ND	ND	ND	ND	-	
	1,1,1-Trichloroethan	e 0.5	ND	ND	ND	ND	-	ND	ND	3.3	ND	-	ND	ND	ND	ND	-	
	Trichloroethylene	0.6	ND	ND	ND	ND	•	ND	ND	ND	ND		ND	ND	ND	ND	-	
	Trichloromethane	0.8	ND	ND	ND	ND	-	ND	ND	ND	ND	-	ND	ND	ND	ND	-	

<sup>(1)</sup> Parts per billion
(2) None detected
(3) No co-located sample taken

TABLE 3-3. CONTINUED

Date			June 24 to June 25					June	25 to J	une 26		June 26 to June 27					
Wind Speed Ra (miles per ho					3 to			<del></del>	2 to 12.5 West Southwest To				2 to 19 West Southwest				
Prevaiting W	ind Direct	ion		₩e	st Sou				West Northwest				To West				
Sampler Location					Downwind	Upwind			Downwind			Upwind			<u>Downwind</u>		
Sampler Type			24 <sup>(3</sup> Hour	) Controlled	24 Hour	Controlled	Co-lo cated	24 Hour	Controlled	24 Hour	Controlled	Co-lo cated	24 Hour	Controlled	24 Hour	Controlled	Colo cated
Sample Numbe	г		-	48-25	1A-25	3A-25	1B-25	2B-26	4A-26	1A-26	3A-26	18-26	28-27	4A-27	1A-27	3A-27	1B-27
Sample Time			-	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Start/Stop			•	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Constituent	Det <u>Lim</u>	ection it (ppb) <sup>(1</sup>	<u> </u>				Cond	centratio	on (ppb, by	volume)	)						
Chloroethene		2	-	ND <sup>(2)</sup>	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene		2	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoe	thane	0.5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloro	ethane	0.2	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorometh	ane	1	-	ND	ND	ND	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroe	thene	0.2	-	ND	ND	ND	ND	0.3	0.4	0.3	0.3	0.4	0.7	0.7	0.5	0.4	0.7
Tetrachlorom	ethane	0.2	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichl	oroethane	0.5	-	ND	ND	ND	ND	ND	0.9	3.3	ND	ND	ND	0.5	0.5	0.5	0.5
Trichloroeth	ylene	0.6	-	ND	NĐ	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloromet	hane	0.8	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

<sup>(1)</sup> Parts per billion

<sup>(2)</sup> None detected

<sup>(3)</sup> This sample bag was empty upon arrival at the laboratory

TABLE 3-3. CONTINUED

	Date June 29 to June 30				June 30 to July 1					July 1 to July 2							
	Wind Speed Range (miles per hour)			1.	5 to 18	3			1	.5 to 15	.5		2 to 17				
	Prevailing Wind Direction						Wes	t Southw	uest		West Southwest						
	Sampler Location		Uрwi	nd		Downwind		Upw	ind		Downwind			owind		Downwind	<del></del>
	Sampler Type		24 Hour C	ontrolled	24 Hour (	Controlled	Co-lo cated	24 Hour C	ontrolled	24 Hour (	Controlled	Co-lo cated	24 Hour	Controlled	24 Hour	Controlled	Co-lo cated
	Sample Number		2B-30	4A-30	1A-30	3A-30	1B-30	2B-1	4A-1	1A-1	3A-1	1B-1	28-2	4A-2	1A-2	3A-2	18-2
	Sample Time		0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800
	Start/Stop		0080	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800
3-7	Constituent Lim	ection it (ppb) <sup>(1</sup>	)				Concer	ntration	(ppb, by	volume)				- <del> </del>			
	Chloroethene	2	ND <sup>(2)</sup>	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Benzene	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,2-Dibromoethane	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,2-Dichloroethane	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Dichloromethane	1	ND	1.1	ND	ND	ND	ND	ND	ND	2.7	ND	4.2	ND	1.3	ND	ND
	Tetrachloroethene	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.4	0.3	0.4	ND	ND	ND	ND
	Tetrachloromethane	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1,1,1-Trichloroethane	0.5	ND	1.0	ND	ND	ND	0.6	ND	ND	0.5	ND	1.2	ND	ND	ND	ND
	Trichloroethylene	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Trichloromethane	0.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NĐ	ND	ND	ND	ND

<sup>(1)</sup> Parts per billion (2) None detected

TABLE 3-3. CONTINUED

	Date		***************************************	July	2 to J	uly 3	<del></del>
	Wind Speed Range (miles per hour)			2	to 21	.5	<del></del>
	Prevailing Wind Direction			West	South	west	
	Sampler Location			owind		Downwind	
	Sampler Type		24 Hour	Controlled	24 Hour	Controlled	Colo- cated
	Sample Number		28-3	4A-3	1A-3	3A-3	1B-1
	Sample Time		0800	0800	0800	0800	0800
	Start/Stop		0800	0800	0800	0800	0800
1	Constituent Lim	ection it (ppb) <sup>(1</sup>	<u> </u>	Concent	ration	(ppb, by vo	lume)
	Chloroethene	2	ND <sup>(2)</sup>	ND	ND	ND	ND
	Benzene	2	ND	ND	ND	ND	ND
	1,2-Dibromoethane	0.5	ND	ND	ND	ND	ND
	1,2-Dichloroethane	0.2	ND	ND	ND	ND	ND
	Dichloromethane	1	ND	ND	ND	ND	ND
	Tetrachloroethene	0.2	0.4	0.5	0.4	0.4	0.5
	Tetrachloromethane	0.2	ND	ND	ND	ND	ND
	1,1,1-Trichloroethane	0.5	0.6	ND	ND	ND	ND
	Trichloroethylene	0.6	ND	ND	ND	ND	ND
	Trichloromethane	0.8	ND	ND	ND	ND	ND

<sup>(1)</sup> Parts per billion (2) None detected

TABLE 3-4. LANDFILL GAS MIGRATION MONITORING DATA

Probe	PP-1	PP-2	Field Blank
Installation Date	6/22/90	6/22/90	N/A
Sample Date	7/3/90	7/3/90	7/3/90
Sample ID No.	PP1-3	PP2-3	Field Blank
•			

Constituent	Detection Limit (ppb)*		Concentration	n (ppb)
Chloroethene	500	ND	ND	ND
Benzene	500	ND	ND	ND
1,2-Dibromoethane	1	ND	ND	ND
1,2-Dichloroethane	20	ND	ND	ND
Dichloromethane	60	ND	ND	ND
Tetrachloroethene	10	ND	ND	ND
Tetrachloromethane	5	ND	ND	ND
1,1,1-Trichloroethane	10	ND	ND	ND
Trichloroethylene	10	ND	ND	ND
Trichloromethane	2	ND	4.9	ND

Constituent	Detection Limit (%)**	Co	ncentration	(%)
Oxygen	0.5	21	21	0.6
Nitrogen	0.5	79	78	0.7
Carbon Monoxide	0.5	ND	ND	ND
Carbon Dioxide	0.5	0.4	0.6	ND
Methane	0.5	ND	ND	ND

ND = Not detected

Parts per billion, by volume Percent, by volume

#### SECTION 4.0

#### CONCLUSIONS

The Air SWAT performed at the Naval Air Station Alameda was conducted in accordance with the Air SWAT Monitoring Plan (SCS, 1989) and State Guidelines (ARB, 1987). The completion of the testing program and submittal of this report to the BAAQMD constitute compliance with HSC 41805.5.

Summarizing the results of the Air SWAT:

- Methane was detected in only one LFG sample at a very low concentration of 3 %. Two of the 10 SACs were detected in one of the LFG samples.
- No methane was detected in the integrated surface samples. Two of the 10 SACs were detected, at very low concentrations, one in each of two separate samples. Neither of the SACs detected in the integrated surface samples were found in the LFG samples.
- Low concentrations of three of the 10 SACs were detected in 31 of the 47 ambient air samples analyzed. The SACs were found in upwind and downwind samples alike. None of the SACs detected in the ambient air samples were found in the LFG samples.
- No methane was detected in either of the landfill perimeter soil gas samples. A low concentration of one of the 10 SACS was observed in one of the landfill perimeter soil gas samples. This SAC was also observed in one of the LFG samples.

It is concluded that very little LFG is being generated in either the West Beach Landfill or the 1943 to 1956 Disposal Area. Although one of the SACs was found in subsurface gas samples collected both on and adjacent to the site, there is no evidence to indicate that the sites are emitting detectable quantities of any of the SACs into the atmosphere.

Because there is no evidence of significant LFG generation, off-site subsurface migration of LFG is not expected to pose a serious problem; however due to the fact that several structures are located in close proximity to the site, it is recommended that a LFG migration monitoring network be installed adjacent to the site and monitored on a regular basis.

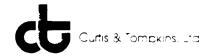
### SECTION 5.0

#### REFERENCES

- 1. State of California Air Resources Board. Hazardous Waste Disposal Site Testing Guidelines. 1987.
- 2. SCS Engineers. Monitoring Plan, Air Quality Solid Waste Assessment Test, West Beach Landfill and the 1943 to 1956 Disposal Area, Naval Air Station Alameda, Alameda, California. Prepared for the Department of the Navy, Western Division, Naval Facilities Engineering Command, San Bruno, California. October 16, 1989.

# **APPENDIX A**

# INTERNAL GAS CHARACTERIZATION LABORATORY ANALYTICAL REPORTS



LABORATORY NUMBER: 100915-1

CLIENT: SCS ENGINEERS

PROJECT #: 0388042 - CANONIE

SAMPLE ID: WA1-26

DATE RECEIVED: 06/27/90 DATE ANALYZED: 06/29/90

DATE REPORTED: 07/11/90

PAGE 2 OF 9

Report on Analysis of Gas Samples for Gross Constituents & Trace Organics

CALDERON "IN SITU" DISPOSAL SITE TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

Results			REPORTING
Chloroethene (Vinyl Chloride)   ND   500		Results	LIMIT
Dichloromethane (Methylene chloride) ND 60 Trichloromethane (Chloroform) ND 2  1,1,1-Trichloroethane (Methylchloroform) ND 10 Tetrachloromethane (Carbon tetrachloride) ND 5  1,2-Dichloroethane (Ethylene Dichloride) ND 20 Trichloroethylene ND 10 Tetrachloroethene (Perchloroethylene) ND 10  1,2-Dibromoethane (EDB) ND 1  Benzene ND 500  GROSS GAS CONSTITUENTS RESULTS (%) (%)  Oxygen 21 0.2 Nitrogen 21 0.2 Carbon Monoxide ND 0.2 Methane ND 0.2	COMPOUND	nl/L (ppb)	nl/L (ppb)
Trichloromethane (Chloroform) ND 10  1,1,1-Trichloroethane (Methylchloroform) ND 10  Tetrachloromethane (Carbon tetrachloride) ND 5  1,2-Dichloroethane (Ethylene Dichloride) ND 20  Trichloroethylene ND 10  Tetrachloroethene (Perchloroethylene) ND 10  1,2-Dibromoethane (EDB) ND 1  Benzene ND 500  GROSS GAS CONSTITUENTS RESULTS REPORTING LIMIT (%)  Oxygen 21 0.2  Nitrogen 21 0.2  Carbon Monoxide ND 0.2  Methane ND 0.2		ND	500
1,1,1-Trichloroethane (Methylchloroform) ND 10 Tetrachloromethane (Carbon tetrachloride) ND 5 1,2-Dichloroethane (Ethylene Dichloride) ND 20 Trichloroethylene ND 10 Tetrachloroethene (Perchloroethylene) ND 10 1,2-Dibromoethane (EDB) ND 1 Benzene ND 500  GROSS GAS CONSTITUENTS RESULTS (%) REPORTING LIMIT (%)  Oxygen 21 0.2 Nitrogen 21 0.2 Carbon Monoxide ND 0.2 Methane ND 0.2	Dichloromethane (Methylene chloride)	ND	6 0
Tetrachloromethane (Carbon tetrachloride) ND 3 1,2-Dichloroethane (Ethylene Dichloride) ND 20 Trichloroethylene ND 10 Tetrachloroethene (Perchloroethylene) ND 10 1,2-Dibromoethane (EDB) ND 1 Benzene ND 500  GROSS GAS CONSTITUENTS RESULTS (%) (%)  Oxygen 21 0.2 Nitrogen 79 0.2 Carbon Monoxide ND 0.2 Methane ND 0.2	Trichloromethane (Chloroform)	ND	2
1,2-Dichloroethane (Ethylene Dichloride) ND 20 Trichloroethylene ND 10 Tetrachloroethene (Perchloroethylene) ND 10 1,2-Dibromoethane (EDB) ND 1 Benzene ND 500  GROSS GAS CONSTITUENTS RESULTS (%) (%)  Oxygen 21 0.2 Nitrogen 79 0.2 Carbon Monoxide ND 0.2 Methane ND 0.2		ND	1 0
Trichloroethylene ND 10 Tetrachloroethene (Perchloroethylene) ND 10 1,2-Dibromoethane (EDB) ND 1 Benzene ND 500  GROSS GAS CONSTITUENTS RESULTS (%) REPORTING LIMIT (%)  Oxygen 2 21 0.2 Nitrogen 79 0.2 Carbon Monoxide ND 0.2 Methane ND 0.2	Tetrachloromethane (Carbon tetrachloride)	ND	5
Tetrachloroethene (Perchloroethylene) 1,2-Dibromoethane (EDB) ND 1 Benzene ND 10 1 REPORTING LIMIT (%)  Oxygen 10 0.2 Nitrogen 11 0.2 Carbon Monoxide ND 0.2 Methane ND 0.2	1,2-Dichloroethane (Ethylene Dichloride)	ND	2 0
1, 2-Dibromoethane (EDB)       ND       1         Benzene       ND       500         GROSS GAS CONSTITUENTS       RESULTS (%)       LIMIT (%)         Oxygen Nitrogen Carbon Monoxide       21 0.2         Carbon Monoxide ND 0.2       ND 0.2         Methane       ND 0.2	Trichloroethylene	ND	10
Benzene         ND         500           GROSS GAS CONSTITUENTS         RESULTS (%)         REPORTING LIMIT (%)           Oxygen (%)         21 (%)         0.2           Nitrogen (Carbon Monoxide (Arbon Monoxide (Methane (Methane (Arbon Monoxide (Methane (	Tetrachloroethene (Perchloroethylene)	ND	10
GROSS GAS CONSTITUENTS         RESULTS (%)         REPORTING LIMIT (%)           Oxygen (%)         21 (%)         0.2           Nitrogen (Carbon Monoxide (Arbon Monoxide (Methane (Methane (Arbon Monoxide (Methane (Methan	1,2-Dibromoethane (EDB)	ND	1
GROSS GAS CONSTITUENTS         RESULTS (%)         LIMIT (%)           Oxygen         21         0.2           Nitrogen         79         0.2           Carbon Monoxide         ND         0.2           Methane         ND         0.2	Benzene	ND	500
Oxygen       21       0.2         Nitrogen       79       0.2         Carbon Monoxide       ND       0.2         Methane       ND       0.2			REPORTING
Oxygen       21       0.2         Nitrogen       79       0.2         Carbon Monoxide       ND       0.2         Methane       ND       0.2	GROSS GAS CONSTITUENTS	RESULTS	LIMIT
Nitrogen790.2Carbon MonoxideND0.2MethaneND0.2		(%)	(%)
Carbon Monoxide ND 0.2 Methane ND 0.2	Охудеп	2 1	0.2
Methane ND 0.2	Nitrogen	79	0.2
1.2	Carbon Monoxide	ND	0.2
Carbon Dioxide ND 0.2	Methane	ND	0.2
	Carbon Dioxide	ND	0.2

ND = Not detected at or above reporting limit.

	=======================================	
	Gross	Trace
	Analysis	Analysis
Duplicate: Relative % Difference	6	2



LABORATORY NUMBER: 100968-1

CLIENT: SCS ENGINEERS

JOB #: 0388042 SAMPLE ID: WA2-3 DATE RECEIVED: 07/03/90 DATE ANALYZED: 07/05/90

DATE REPORTED: 07/16/90

Report on Analysis of Gas Samples for Gross Constituents & Trace Organics

CALDERON "IN SITU" DISPOSAL SITE TESTING (CH&S Code 41805.5) METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		REPORTING
	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	500
Dichloromethane (Methylene chloride)	ND	60
Trichloromethane (Chloroform)	9.4	2
1,1,1-Trichloroethane (Methylchloroform)	ND	10
Tetrachloromethane (Carbon tetrachloride)	ND	5
1,2-Dichloroethane (Ethylene Dichloride)	ND	20
Trichloroethylene	3 9	10
Tetrachloroethene (Perchloroethylene)	ND	10
1,2-Dibromoethane (EDB)	ND	1
Веп z е п е	ND	500
		REPORTING
GROSS GAS CONSTITUENTS	RESULTS	LIMIT
	(%)	(%)
Oxygen	1 6	0.2
Nitrogen	7 9	0.2
Carbon Monoxide	ND	0.2
Methane	ND	0.2
Carbon Dioxide	4.4	0.2

ND = Not detected at or above reporting limit.

		==========
	Gross	Trace
	Analysis	Analysis
Duplicate: Relative % Difference	3	<1



LABORATORY NUMBER: 100968-3

CLIENT: SCS ENGINEERS

JOB #: 0388042 SAMPLE ID: LFG-1 DATE RECEIVED: 07/03/90 DATE ANALYZED: 07/05/90 DATE REPORTED: 07/16/90

Report on Analysis of Gas Samples for Gross Constituents & Trace Organics

CALDERON "IN SITU" DISPOSAL SITE TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		REPORTING
	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	500
Dichloromethane (Methylene chloride)	ND	6 0
Trichloromethane (Chloroform)	ND	2
1,1,1-Trichloroethane (Methylchloroform)	ND	1 0
Tetrachloromethane (Carbon tetrachloride)	ND	5
1,2-Dichloroethane (Ethylene Dichloride)	ND	2 0
Trichloroethylene	ND	1 0
Tetrachloroethene (Perchloroethylene)	ND	10
1,2-Dibromoethane (EDB)	ND	1
Benzene	ND	5 0 0
		REPORTING
GROSS GAS CONSTITUENTS	RESULTS	LIMIT
	(%)	(%)
Oxygen	5.5	0.2
Nitrogen	70.4	0.2
Carbon Monoxide	ND	0.2
Methane	3.0	0.2
Carbon Dioxide	15	0.2

ND = Not detected at or above reporting limit.

		==============
	Gross	Trace
	Analysis	Analysis
Duplicate: Relative % Difference	3	<1



LABORATORY NUMBER: 100968-4

CLIENT: SCS ENGINEERS

DATE RECEIVED: 07/03/90

DATE ANALYZED: 07/04/90

JOB #: 0388042 DATE REPORTED: 07/16/90

SAMPLE ID: LFG-2

Report on Analysis of Gas Samples for Gross Constituents & Trace Organics

CALDERON "IN SITU" DISPOSAL SITE TESTING (CH&S Code 41805.5) METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		REPORTING
	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	500
Dichloromethane (Methylene chloride)	ND	6 0
Trichloromethane (Chloroform)	ND	2
1,1,1-Trichloroethane (Methylchloroform)	ND	10
Tetrachloromethane (Carbon tetrachloride)	ND	5
1,2-Dichloroethane (Ethylene Dichloride)	ND	2 0
Trichloroethylene	ND	10
Tetrachloroethene (Perchloroethylene)	ND	10
1,2-Dibromoethane (EDB)	ND	1
Benzene	ND	500
		REPORTING
GROSS GAS CONSTITUENTS	RESULTS	LIMIT
	(%)	(%)
Охудеп	19	0.2
Nitrogen	78	0.2
Carbon Monoxide	ND	0.2
Me t h a n e	ND	0.2
Carbon Dioxide	1.3	0.2

ND = Not detected at or above reporting limit.

	Gross	Trace
	Analysis	Analysis
Duplicate: Relative % Difference	3	<1



LABORATORY NUMBER: 100968-5

CLIENT: SCS ENGINEERS

DATE RECEIVED: 07/03/90
DATE ANALYZED: 07/04/90

JOB #: 0388042 DATE REPORTED: 07/16/90

SAMPLE ID: LFG-3

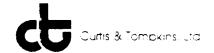
Report on Analysis of Gas Samples for Gross Constituents & Trace Organics

CALDERON "IN SITU" DISPOSAL SITE TESTING (CH&S Code 41805.5) METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

	Results	REPORT I NG L IMI T
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	500
Dichloromethane (Methylene chloride)	ND	6 0
Trichloromethane (Chloroform)	ND	2
1,1,1-Trichloroethane (Methylchloroform)	ND	10
Tetrachioromethane (Carbon tetrachioride)	ND	5
1,2-Dichloroethane (Ethylene Dichloride)	ND	2 0
Trichloroethylene	ND	10
Tetrachloroethene (Perchloroethylene)	ND	10
1,2-Dibromoethane (EDB)	ND	1
Benzene	ND	5 0 0
		REPORTING
GROSS GAS CONSTITUENTS	RESULTS	LIMIT
	(%)	(%)
Oxygen	2 1	0.2
Nitrogen	79	0.2
Carbon Monoxide	ND	0.2
Me t h a n e	ND	0.2
Carbon Dioxide	0.2	0.2

ND = Not detected at or above reporting limit.

	Gross	Trace		
	Analysis	Analysis		
Duplicate: Relative % Difference	3	<1		



LABORATORY NUMBER: 100915-2

CLIENT: SCS ENGINEERS

PROJECT #: 0388042 - CANONIE

DATE RECEIVED: 06/27/90

DATE ANALYZED: 06/29/90

DATE REPORTED: 07/11/90

SAMPLE ID: FIELD BLANK-26A PAGE 3 OF 9

Report on Analysis of Gas Samples for Gross Constituents & Trace Organics

CALDERON "IN SITU" DISPOSAL SITE TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

	D 14 -	REPORTING
	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	500
Dichloromethane (Methylene chloride)	ND	60
Trichloromethane (Chloroform)	ND	2
1,1,1-Trichloroethane (Methylchloroform)	ND	10
Tetrachloromethane (Carbon tetrachloride)	ND	5
1,2-Dichloroethane (Ethylene Dichloride)	ND	2 0
Trichloroethylene	ND	10
Tetrachioroethene (Perchloroethylene)	ND	10
1,2-Dibromo ethane (EDB)	ND	1
Benzene	ND	500
		REPORTING
GROSS GAS CONSTITUENTS	RESULTS	LIMIT
	(%)	(%)
Oxygen	0.5	0.2
Nitrogen	1.3	0.2
Carbon Monoxide	ND	0.2
Methane	ND	0.2
Carbon Dioxide	ND	0.2

ND = Not detected at or above reporting limit.

	Gross	Trace
	Analysis	Analysis
Dunlicate: Relative % Difference	6	2

# **APPENDIX B**

# INTEGRATED SURFACE SAMPLE FIELD DATA SHEETS AND LABORATORY ANALYTICAL REPORTS

# APPENDIX B – INTEGRATED SURFACE SAMPLE FIELD DATA SHEETS AND LABORATORY ANALYTICAL REPORTS

AIR QUALITY SOLID WASTE ASSESSMENT TEST REPORT

THE ABOVE IDENTIFIED APPENDIX HAS MISSING PAGES. IT COULD NOT BE DETERMINED WHETHER THESE PAGES ARE MISSING OR THE DOCUMENT WAS ISSUED WITHOUT THESE PAGES.

QUESTIONS MAY BE DIRECTED TO:

DIANE C. SILVA
RECORDS MANAGEMENT SPECIALIST
SOUTHWEST
NAVAL FACILITIES ENGINEERING COMMAND
1220 PACIFIC HIGHWAY
SAN DIEGO, CA 92132

**TELEPHONE: (619) 532-3676** 

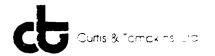
SAMPLE LOCA		BAG NUMBER:  EQUIPMENT L. D. NUMBER:  OTHER:	55 - /	
PROGRAM STA	AT: (DATE): 1/25	TIME: 9:00	/ MIGRATION	
	ROTOMETER READING	BUBBLE FLOW METER	AVERAGE FLOW	
	BAG ON BAG OFF	DIS. VOL TIME FLOW (cc) (SEC) (cc/mm)	( ∞ / min )	
PROGRAM START	(1)	100  3.2  454.2 100  2.83 467.7 100  2.16 473.4	S	
PROGRAM STOP	(1)	100 16.28 357.6 100 17.19 350.3 100 17.07 351.5	353.13	
SAMPLE	ANALYSIS: COMPOUND ATTACHMEN VINYL CHLOF METHANE FIXED GASE OTHER	AIR/LFG AIR/LFG AIR/LFG	SAMPLE AVERAGE FLOW 00/mm	
BATTERY CHECK: OK LEAK CHECK OK				
OBSERVA		Clear w/ slight breeze	from W	

PERSONNEL: JOB NUMBER: SAMPLE LOCA'	TION:	55- <del>-</del>			
SAMPLE T		2152	/ MIGRATION		
PROGRAM STA	PHT: (DATE): <u>し(し)</u> PP: (DATE):	TIME: 2150	<del>,</del>		
	W CALIBRATION TESTS:				
	ROTOMETER READING	BUBBLE FLOW METER	AVERAGE FLOW		
	BAG ON BAG OFF	DIS. VOL TIME FLOW (cc) (SEC) (cc/mm)	( ∞ / min )		
PROGRAM START	(1) (2) (3) (4)	100 16.89 355.2 11 17.02 352.5 11 16.71 359.1	355.6		
PROGRAM STOP	(1)	100 13.21 454.2 11 12.83 41.27 11 12.16 493.4	441.8		
SAMPLE	ANALYSIS: COMPOUNDS ATTACHMENT-1 VINYL CHLORIDE METHANE FIXED GASES OTHER	DETECTION LIMITS  AIR / LFG  AIR / LFG  AIR / LFG	SAMPLE AVERAGE FLOW 00/mm		
BATTERY CHECK: OK LEAK CHECK OK					
OBSERVA		Dean W/ W breeze			

PERSONNEL: .	DEM				SAMPLE I. D. NUI	WBER: _/55	5-3
JOB NUMBER: <u>0.388042</u>		8	AG NUMBER: <		· · · · · · · · · · · · · · · · · · ·		
SAMPLE LOCATION:				EQUIPMENT L.D.	NUMBER:		
SAMPLE STATE	ON NUMBER	·			OTHER:		
SAMPLET	YPE: AN	IBIENT AIF	R / (INTEGR	ATED SURFAC	E SAMPLE	LFG /	MIGRATION
PROGRAM STA	RT: ( DATE ):	6	125		TME:	30	
PROGRAM STO			6/25		TME:	Misso 7	-100
PUMP FLOV	V CALIBRA	T MOIT	ESTS:				
	RC	TOMETER	READING	BUBBI	LE FLOW METER	 	AVERAGE FLOW
	В	AG ON	BAG OFF	DIS. VOL (∞)	TIME (SEC)	FLOW (cc/mm)	( ∞ / min )
PROGRAM START PROGRAM STOP	(1) — (2) — (3) — (4) — (5) — (1) — (2) — (3) —			/00 (1 1) (60 (1	16.02	410.0 419.9 412.9 379.5 375.7	414.b 346.6#
	(4) —						
SAMPLE A	ANALYSIS:	VIA VIA FI)	TACHMENT 1. IYL CHLORIDE THANE KED GASES THER		DETECTION LIM  ***ATTP:/ LFG AIR / LFG AIR / LFG AIR / LFG	ITS	SAMPLE AVERAGE FLOW &/mm
BATTERY CHECK: OK LOW LEAK CHECK OK							
OBSERVATIONS: PROGRAM START: Clas w/ 5/ight heeze from & W					m & W		
		PROGR	AM STOP:			<del></del>	

PERSONNEL: _ JOB NUMBER: SAMPLE LOCAT SAMPLE STATK	038 non:	8042		BA	G NUMBER: DUIPMENT L D THER:	NUMBER:	
<u> </u>	YPE: AM			ATED SURFACE			/ MIGRATION
PROGRAM STA			4/25		me: <u>+</u> : me: <u>7</u> !	<u>15</u> 4:-	
PROGRAM STO				!	ME:	<u></u>	
PUMP FLOY	·		READING	DI 1001 E	FLOW METE		AVERAGE FLOW
		AG ON	BAG OFF	DIS. VOL	TIME (SEC)	FLOW (∞/mm)	(∞/min)
PROGRAM START	(1) — (2) — (3) — (4) — (5) —			, 00  {   	<u> 15.81</u>	324.5 391.5 395.7	376.6
PROGRAM STOP	(1) — (2) — (3) — (4) — (5) —			100 11 11	19.02	355.2 552.5 351.1	355.6
SAMPLE A	ANALYSIS:	AT VII MI FII	COMPOUNDS  TACHMENT 1  NYL CHLORIDE  ETHANE  XED GASES  THER		DETECTION LI (AIR / LFG AIR / LFG AIR / LFG	MITS	SAMPLE AVERAGE FLOW 00/mm
BATTERY		OK	LOW	1 1			ОК 28
		PROGR	AM STOP:				





LAB NUMBER: 100891-1 CLIENT: SCS ENGINEERS PROJECT #: 0388042 SAMPLE ID: ISS-1 DATE RECEIVED: 06/25/90 DATE ANALYZED: 06/27/90 DATE REPORTED: 07/02/90

PAGE 2 OF 11

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

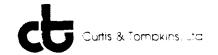
	Pagulta.	CALDERON REPORTING
COMPOUND	Results nl/L (ppb)	LIMIT nI/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0
GROSS GAS CONSTITUENT	Result(%)	Reporting Limit (%)
Methane	ND	0.2

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference

17



LAB NUMBER: 100891-2 DATE RECEIVED: 06/25/90 CLIENT: SCS ENGINEERS DATE ANALYZED: 06/27/90 PROJECT #: 0388042

DATE REPORTED: 07/02/90 PAGE 3 OF 11 SAMPLE ID: ISS-2

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5) METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORTING
•	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2.Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.2	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0
GROSS GAS CONSTITUENT	Result(%)	Reporting Limit(%)
Me t h a n e	ND	0.2

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY 

Duplicate: Relative % Difference

17



 LAB NUMBER: 100891-3
 DATE RECEIVED: 06/25/90

 CLIENT: SCS ENGINEERS
 DATE ANALYZED: 06/27/90

 PROJECT #: 0388042
 DATE REPORTED: 07/02/90

 SAMPLE ID: ISS-3
 PAGE 4 OF 11

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORTING
·	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	1.2	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0
GROSS GAS CONSTITUENT	Result (%)	Reporting Limit(%)
Me t han e	ND	0.2

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100891-4 DATE RECEIVED: 06/25/90 CLIENT: SCS ENGINEERS DATE ANALYZED: 06/27/90 PROJECT #: 0388042 DATE REPORTED: 07/02/90

SAMPLE ID: ISS-4 PAGE 5 OF 11

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5) METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

•		CALDERON REPORTING
	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0
GROSS GAS CONSTITUENT		
	Result (%)	Reporting Limit(%)
Methane	ND	0.2

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY 

17

Duplicate: Relative % Difference

#### **APPENDIX C**

## AMBIENT AIR MONITORING FIELD DATA SHEETS AND LABORATORY ANALYTICAL REPORTS

#### APPENDIX C – AMBIENT AIR MONITORING FIELD DATA SHEETS AND LABORATORY ANALYTICAL REPORTS

AIR QUALITY SOLID WASTE ASSESSMENT TEST REPORT

THE ABOVE IDENTIFIED APPENDIX HAS MISSING PAGES. IT COULD NOT BE DETERMINED WHETHER THESE PAGES ARE MISSING OR THE DOCUMENT WAS ISSUED WITHOUT THESE PAGES.

**QUESTIONS MAY BE DIRECTED TO:** 

DIANE C. SILVA
RECORDS MANAGEMENT SPECIALIST
SOUTHWEST
NAVAL FACILITIES ENGINEERING COMMAND
1220 PACIFIC HIGHWAY
SAN DIEGO, CA 92132

**TELEPHONE:** (619) 532-3676

DATE RECEIVED: 06/24/90 DATE REPORTED: 06/28/90

PAGE 1 OF 6

LAB NUMBER: 100877

CLIENT: SCS ENGINEERS

REPORT ON: 5 AIR SAMPLES

PROJECT #:0388042

RESULTS: SEE ATTACHED

QA/QC Approval

Final Approvar

Los Angeles

Berkeley Wilmington



LAB NUMBER: 100877-1

CLIENT: SCS ENGINEERS

PROJECT #: 0388042

DATE RECEIVED: 06/24/90

DATE ANALYZED: 06/26/90

DATE REPORTED: 06/28/90

SAMPLE ID: 1A-24 PAGE 2 OF 6

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

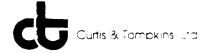
		CALDERON
		DETECTION
•	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon detection limit.

QA/QC SUMMARY

\_\_\_\_\_\_

Duplicate: Relative % Difference



LAB NUMBER: 100877-2 CLIENT: SCS ENGINEERS PROJECT #: 0388042 SAMPLE ID: 3A-24

DATE RECEIVED: 06/24/90
DATE ANALYZED: 06/26/90
DATE REPORTED: 06/28/90

PAGE 3 OF 6

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

COMPOUND	Results nl/L (ppb)	CALDERON DETECTION LIMIT nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachioromethane (Carbon tetrachioride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon detection limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100877-3

CLIENT: SCS ENGINEERS

PROJECT #: 0388042

DATE RECEIVED: 06/24/90

DATE ANALYZED: 06/26/90

DATE REPORTED: 06/28/90

SAMPLE ID: 2A-24 PAGE 4 OF 6

Report on Analysis of Gas Samples for Trace Organic Constituents

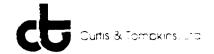
CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON DETECTION
•	Results	LIMIT
COMPOUND	n!/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon detection limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100877-4

CLIENT: SCS ENGINEERS

PROJECT #: 0388042

DATE RECEIVED: 06/24/90

DATE ANALYZED: 06/26/90

DATE REPORTED: 06/28/90

SAMPLE ID: 4A-24 PAGE 5 OF 6

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON DETECTION
•	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	ND	0.2
1.2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon detection limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



 LAB NUMBER: 100877-5
 DATE RECEIVED: 06/24/90

 CLIENT: SCS ENGINEERS
 DATE ANALYZED: 06/26/90

 PROJECT #: 0388042
 DATE REPORTED: 06/28/90

SAMPLE ID: FIELD BLANK-24 PAGE 6 OF 6

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON DETECTION
•	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon detection limit.

QA/QC SUMMARY

Duplicate: Relative % Difference 3



# Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878. 2323 Fifth Street. Berkeley. CA 94710. Phone (415) 486-0900

DATE RECEIVED: 06/25/90

DATE REPORTED: 07/02/90

PAGE 1 OF 11

NOTE: pp. 2-5 ARE

ISS REPORTS,

SEE Apperbix B.

LAB NUMBER: 100891

CLIENT: SCS ENGINEERS

REPORT ON: 10 AIR SAMPLES

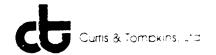
PROJECT #: 0388042

RESULTS: SEE ATTACHED

Wilmington

Los Angeles

Berkeley



LAB NUMBER: 100891-5

CLIENT: SCS ENGINEERS

PROJECT #: 0388042

DATE RECEIVED: 06/25/90

DATE ANALYZED: 06/27/90

DATE REPORTED: 07/02/90

SAMPLE ID: FIELD BLANK-25A PAGE 6 OF 11

Report on Analysis of Gas Samples for Trace Organic Constituents

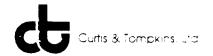
CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORTING
•	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachioroethene (Perchioroethylene)	0.3	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0
GROSS GAS CONSTITUENT	Result (%)	Reporting Limit (%)
Methane	ND	0.2

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



 LAB NUMBER: 100891-6
 DATE RECEIVED: 06/25/90

 CLIENT: SCS ENGINEERS
 DATE ANALYZED: 06/27/90

 PROJECT #: 0388042
 DATE REPORTED: 07/02/90

SAMPLE ID: 1A-25 PAGE 7 OF 11

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON
•		REPORTING
	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachioroethene (Perchioroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100891-7 CLIENT: SCS ENGINEERS PROJECT #: 0388042 SAMPLE ID: 1B-25 DATE RECEIVED: 06/25/90
DATE ANALYZED: 06/27/90
DATE REPORTED: 07/02/90

PAGE 8 OF 11

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

•	Results	CALDERON REPORTING LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
	,	
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	1.1	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100891-8 CLIENT: SCS ENGINEERS PROJECT #: 0388042 SAMPLE ID: 3A-25 DATE RECEIVED: 06/25/90
DATE ANALYZED: 06/27/90
DATE REPORTED: 07/02/90

PAGE 9 OF 11

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORTING
•	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100891-10 CLIENT: SCS ENGINEERS PROJECT #: 0388042 SAMPLE ID: 4B-25 DATE RECEIVED: 06/25/90
DATE ANALYZED: 06/27/90
DATE REPORTED: 07/02/90

PAGE 10 OF 11

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORTING
•	Results	LIMIT
COMPOUND	nl/L (ppb)	ni/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY



 LAB NUMBER: 100891-11
 DATE RECEIVED: 06/25/90

 CLIENT: SCS ENGINEERS
 DATE ANALYZED: 06/27/90

 PROJECT #: 0388042
 DATE REPORTED: 07/02/90

SAMPLE ID: FIELD BLANK-25B PAGE 11 OF 11

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

COMPOUND	Results nl/L (ppb)	CALDERON REPORTING LIMIT nl/L (ppb)
	•	
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference

DATE RECEIVED: 06/26/90 DATE REPORTED: 07/03/90

PAGE 1 OF 7

LAB NUMBER: 100905

CLIENT: SCS ENGINEERS

REPORT ON: 6 AIR SAMPLES

PROJECT #: 0388042 LOCATION: NAS-ALAMEDA

RESULTS: SEE ATTACHED

QA/QC Approval

Final Approval



LAB NUMBER: 100905-1 CLIENT: SCS ENGINEERS PROJECT #:0388042

PROJECT #: 0388042 SAMPLE ID: 4A-26 DATE RECEIVED: 06/26/90
DATE ANALYZED: 06/27/90
DATE REPORTED: 07/03/90

PAGE 2 OF 7

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

•		CALDERON REPORTING
	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	0.9	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.4	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100905-2

CLIENT: SCS ENGINEERS

PROJECT #:0388042

DATE RECEIVED: 06/26/90

DATE ANALYZED: 06/27/90

DATE REPORTED: 07/03/90

SAMPLE ID: 2B-26 PAGE 3 OF 7

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORTING
	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.3	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100905-3
CLIENT: SCS ENGINEERS

PROJECT #: 0388042 SAMPLE ID: 1A-26 DATE RECEIVED: 06/26/90
DATE ANALYZED: 06/27/90
DATE REPORTED: 07/03/90

PAGE 4 OF 7

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORTING
•	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.3	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100905-4 DATE RECEIVED: 06/26/90 CLIENT: SCS ENGINEERS DATE ANALYZED: 06/28/90 PROJECT #:0388042 DATE REPORTED: 07/03/90

SAMPLE ID: 1B-26 PAGE 5 OF 7

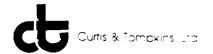
Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5) METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

•	Results	CALDERON REPORTING LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.4	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY 



LAB NUMBER: 100905-5 CLIENT: SCS ENGINEERS PROJECT #:0388042

SAMPLE ID: 3A-26

DATE RECEIVED: 06/26/90 DATE ANALYZED: 06/28/90 DATE REPORTED: 07/03/90

PAGE 6 OF 7

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

COMPOUND	Results n1/L (ppb)	CALDERON REPORTING LIMIT nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.3	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



 LAB NUMBER: 100905-6
 DATE RECEIVED: 06/26/90

 CLIENT: SCS ENGINEERS
 DATE ANALYZED: 06/27/90

 PROJECT #:0388042
 DATE REPORTED: 07/03/90

SAMPLE ID: FIELD BLANK-26 PAGE 7 OF 7

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORTING
•	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY	
	===

Duplicate: Relative % Difference



### Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (415) 486-0900

DATE RECEIVED: 06/27/90 DATE REPORTED: 07/05/90

PAGE 1 OF 9

Note: pp. 2 = 3 ARE

INTERNA LAS Reports,

SEE Appenoix A.

LAB NUMBER: 100915

CLIENT: SCS ENGINEERS

REPORT ON: 8 AIR SAMPLES

PROJECT #: 0388042

LOCATION: NAS - ALAMEDA

RESULTS: SEE ATTACHED

QA/QC Approval

Final Approval



LAB NUMBER: 100915-3 DATE RECEIVED: 06/27/90 CLIENT: SCS ENGINEERS

DATE ANALYZED: 06/29/90 PROJECT #: 0388042 - CANONIE DATE REPORTED: 07/05/90

SAMPLE ID: 1A-27 PAGE 4 OF 9

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5) METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

COMPOUND	Results nl/L (ppb)	CALDERON REPORTING LIMIT nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	0.5	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.5	0.2
1, 2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100915-4 CLIENT: SCS ENGINEERS
PROJECT #: 0388042 - CANONIE

SAMPLE ID: 1B-27

DATE RECEIVED: 06/27/90 DATE ANALYZED: 06/29/90 DATE REPORTED: 07/05/90

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Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5) METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

	CALDERON REPORTING
Results	LIMIT
nl/L (ppb)	nl/L (ppb)
ND	2.0
ND	1.0
ND	0.8
0.5	0.5
ND	0.2
ND	0.2
ND	0.6
0.7	0.2
ND	0.5
ND	2.0
	ND N

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100915-5 CLIENT: SCS ENGINEERS

PROJECT #: 0388042 - CANONIE

SAMPLE ID: 3A-27

DATE RECEIVED: 06/27/90
DATE ANALYZED: 06/29/90

DATE REPORTED: 07/05/90

PAGE 6 OF 9

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORTING
	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	0.5	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.4	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100915-6 CLIENT: SCS ENGINEERS

PROJECT #: 0388042 - CANONIE

SAMPLE ID: 2B-27

DATE RECEIVED: 06/27/90
DATE ANALYZED: 06/29/90
DATE REPORTED: 07/05/90

PAGE 7 OF 9

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

COMPOUND	Results nl/L (ppb)	CALDERON REPORTING LIMIT nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.7	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100915-7 CLIENT: SCS ENGINEERS

PROJECT #: 0388042 - CANONIE

SAMPLE ID: 4A-27

DATE RECEIVED: 06/27/90
DATE ANALYZED: 06/29/90
DATE REPORTED: 07/05/90

PAGE 8 OF 9

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

•	Results	CALDERON REPORTING LIMIT
COMPOUND	nl/L (ppb)	ni/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	0.5	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.7	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



DATE RECEIVED: 06/27/90

LAB NUMBER: 100915-8 CLIENT: SCS ENGINEERS

CLIENT: SCS ENGINEERS

PROJECT #: 0388042 - CANONIE

DATE REPORTED: 07/05/90

SAMPLE ID: FIELD BLANK - 27 PAGE 9 OF 9

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORT ING
•	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference

DATE RECEIVED: 07/02/90 DATE REPORTED: 07/06/90

**PAGE 1 OF 19** 

LAB NUMBER: 100946

CLIENT: SCS ENGINEERS

REPORT ON: 18 AIR SAMPLES

PROJECT #: 0388042

LOCATION: NAS - ALAMEDA

RESULTS: SEE ATTACHED

Final Approval

Berkeley Wilmington

Los Angeles



LAB NUMBER: 100946-1 CLIENT: SCS ENGINEERS

PROJECT #:0388042 - NAS ALAMEDA

SAMPLE ID: 1A-30

DATE RECEIVED: 07/02/90
DATE ANALYZED: 07/02/90
DATE REPORTED: 07/06/90

PAGE 2 OF 19

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORTING
•	Results	LIMIT
COMPOUND	nl/L (ppb)	ni/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachioroethene (Perchloroethylene)	0.3	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



 LAB NUMBER: 100946-2
 DATE RECEIVED: 07/02/90

 CLIENT: SCS ENGINEERS
 DATE ANALYZED: 07/02/90

PROJECT #: 0388042 - NAS ALAMEDA DATE REPORTED: 07/06/90

SAMPLE ID: 1B-30 PAGE 3 OF 19

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

COMPOUND	Results nl/L (ppb)	CALDERON REPORTING LIMIT nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.3	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100946-3

CLIENT: SCS ENGINEERS

PROJECT #: 0388042 - NAS ALAMEDA

DATE RECEIVED: 07/02/90

DATE ANALYZED: 07/02/90

DATE REPORTED: 07/06/90

SAMPLE ID: 2B-30 PAGE 4 OF 19

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

COMPOUND	Results nl/L (ppb)	CALDERON REPORTING LIMIT nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.3	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100946-4 CLIENT: SCS ENGINEERS

PROJECT #:0388042 - NAS ALAMEDA

SAMPLE ID: 3A-30

DATE RECEIVED: 07/02/90 DATE ANALYZED: 07/02/90 DATE REPORTED: 07/06/90

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Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORTING
•	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.3	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100946-5 CLIENT: SCS ENGINEERS

PROJECT #:0388042 - NAS ALAMEDA

SAMPLE ID: 4A-30

DATE RECEIVED: 07/02/90
DATE ANALYZED: 07/02/90
DATE REPORTED: 07/06/90

PAGE 6 OF 19

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

	Results	CALDERON REPORTING LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	1.1	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	1.0	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.3	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100946-6 CLIENT: SCS ENGINEERS

PROJECT #: 0388042 - NAS ALAMEDA

SAMPLE ID: FIELD BLANK-30

DATE RECEIVED: 07/02/90 DATE ANALYZED: 07/02/90

DATE REPORTED: 07/06/90

PAGE 7 OF 19

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORTING
•	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100946-7 CLIENT: SCS ENGINEERS

PROJECT #:0388042 - NAS ALAMEDA

SAMPLE ID: 1A-1

DATE RECEIVED: 07/02/90 DATE ANALYZED: 07/03/90 DATE REPORTED: 07/06/90

PAGE 8 OF 19

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

	Results	CALDERON REPORTING LIMIT
<del>-</del>		
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.3	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC	SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100946-8

CLIENT: SCS ENGINEERS

PROJECT #: 0388042 - NAS ALAMEDA

DATE RECEIVED: 07/02/90

DATE ANALYZED: 07/03/90

DATE REPORTED: 07/06/90

SAMPLE ID: 1B-1 PAGE 9 OF 19

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORTING
	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.3	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

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Duplicate: Relative % Difference



LAB NUMBER: 100946-9 CLIENT: SCS ENGINEERS

PROJECT #:0388042 - NAS ALAMEDA

SAMPLE ID: 2B-1

DATE RECEIVED: 07/02/90 DATE ANALYZED: 07/03/90

DATE REPORTED: 07/06/90

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Report on Analysis of Gas Samples for Trace Organic Constituents

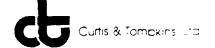
CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

	Results	CALDERON REPORTING LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	0.6	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachioroethene (Perchioroethylene)	0.4	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100946-10 CLIENT: SCS ENGINEERS

PROJECT #:0388042 - NAS ALAMEDA

SAMPLE ID: 3A-1

DATE RECEIVED: 07/02/90 DATE ANALYZED: 07/03/90

**DATE REPORTED:** 07/06/90

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Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORTING
•	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	2.7	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	0.5	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.4	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100946-11
CLIENT: SCS ENGINEERS
DATE RECEIVED: 07/02/90
DATE ANALYZED: 07/03/90

PROJECT #: 0388042 - NAS ALAMEDA DATE REPORTED: 07/06/90

SAMPLE ID: 4A-1 PAGE 12 OF 19

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

	Results	CALDERON REPORTING LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1.Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachioroethene (Perchloroethylene)	0.4	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100946-12 CLIENT: SCS ENGINEERS

PROJECT #:0388042 - NAS ALAMEDA

SAMPLE ID: FIELD BLANK-1

DATE RECEIVED: 07/02/90 DATE ANALYZED: 07/03/90

DATE REPORTED: 07/06/90 PAGE 13 OF 19

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

	<b>n</b>	CALDERON REPORTING
•	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100946-13 CLIENT: SCS ENGINEERS

PROJECT #:0388042 - NAS ALAMEDA

SAMPLE ID: 1A-2

DATE RECEIVED: 07/02/90 DATE ANALYZED: 07/03/90

DATE REPORTED: 07/06/90

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Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

	<b>9</b> 1 4 -	CALDERON REPORTING
COMPOUND.	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	1.3	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100946-14 CLIENT: SCS ENGINEERS

PROJECT #:0388042 - NAS ALAMEDA

SAMPLE ID: 1B-2

DATE RECEIVED: 07/02/90
DATE ANALYZED: 07/03/90
DATE REPORTED: 07/06/90

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Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORTING
	Results	LIMIT
COMPOUNĎ	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachioroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100946-15

CLIENT: SCS ENGINEERS

PROJECT #: 0388042 - NAS ALAMEDA

DATE RECEIVED: 07/02/90

DATE ANALYZED: 07/03/90

DATE REPORTED: 07/06/90

SAMPLE ID: 2B-2 PAGE 16 OF 19

NOTE: BAG RECEIVED WITH VALVE IN OPEN POSITION

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

	Results	CALDERON REPORTING LIMIT
COMPOUND	nl/L (ppb)	ni/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	4.2	1.0
Trichloromethane (Chioroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	1.2	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.4	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100946-16 CLIENT: SCS ENGINEERS

PROJECT #:0388042 - NAS ALAMEDA

SAMPLE ID: 3A-2

DATE RECEIVED: 07/02/90
DATE ANALYZED: 07/03/90
DATE REPORTED: 07/06/90

PAGE 17 OF 19

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORT ING
	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100946-17 CLIENT: SCS ENGINEERS

PROJECT #:0388042 - NAS ALAMEDA

SAMPLE ID: 4A-2

DATE RECEIVED: 07/02/90
DATE ANALYZED: 07/03/90

DATE REPORTED: 07/06/90

PAGE 18 OF 19

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORTING
	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachioroethene (Perchloroethylene)	ND	0.2
1,2-Dibromo ethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100946-18 CLIENT: SCS ENGINEERS

PROJECT #:0388042 - NAS ALAMEDA

SAMPLE ID: FIELD BLANK-2

DATE RECEIVED: 07/02/90
DATE ANALYZED: 07/03/90
DATE REPORTED: 07/06/90

PAGE 19 OF 19

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORTING
•	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



# Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (415) 486-0900

DATE RECEIVED: 07/03/90 DATE REPORTED: 07/16/90

LAB NUMBER: 100968

CLIENT: SCS ENGINEERS

REPORT ON: 12 AIR SAMPLES

- 6 SAMPLES MIRE INTERNAL CAS (4)

& PERIMETAL SOIL GAS (2) SAMPLES,

SEEA PROMOTERS A & E

PROJECT #: 0388042 LOCATION: NAS-ALAMEDA

RESULTS: SEE ATTACHED

Wilminaton Los Angeles Berkelev



LAB NUMBER: 100968-9 CLIENT: SCS ENGINEERS

JOB #: 0388042 SAMPLE ID: 2B-3 DATE RECEIVED: 07/03/90
DATE ANALYZED: 07/04/90
DATE REPORTED: 07/16/90

Report on Analysis of Gas Samples for Gross Constituents & Trace Organics

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

COMPOUND	Results nl/L (ppb)	CALDERON REPORTING LIMIT nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2
Dichloromethane (Methylene chloride)	ND	1
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	0.6	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.4	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2
GROSS GAS CONSTITUENTS	RESULTS (%)	REPORTING LIMIT (%)
	<b>,</b> , ,	•
Oxygen	21	0.2
Nitrogen	79	0.2
Carbon Monoxide	ND	0.2
Methane	ND	0.2
Carbon Dioxide	ND	0.2

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Gross Analysis Trace Analysis

Duplicate: Relative % Difference 3



CALDEDON

LAB NUMBER: 100968-11 CLIENT: SCS ENGINEERS

JOB #: 0388042 SAMPLE ID: 4A-3 DATE RECEIVED: 07/03/90 DATE ANALYZED: 07/04/90 DATE REPORTED: 07/16/90

Report on Analysis of Gas Samples for Gross Constituents & Trace Organics

CALDERON AMBIENT TESTING (CH&S Code 41805.5) METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

Results	CALDERON REPORTING LIMIT
nl/L (ppb)	nl/L (ppb)
ND	2
ND	1
ND	0.8
ND	0.5
ND	0.2
ND	0.2
ND	0.6
0.5	0.2
ND	0.5
ND	2
	REPORTING
	LIMIT
(%)	(%)
21	0.2
79	0.2
ND	0.2
ND	0.2
ND	0.2
	ND N

ND = Not detected at or above reporting limit.

#### QA/QC SUMMARY

Gross Analysis Trace Analysis

Duplicate: Relative % Difference

<1



0.2

LAB NUMBER: 100968-7 CLIENT: SCS ENGINEERS

JOB #: 0388042 SAMPLE ID: 1A-3

Carbon Dioxide

DATE RECEIVED: 07/03/90
DATE ANALYZED: 07/04/90

**DATE REPORTED:** 07/16/90

Report on Analysis of Gas Samples for Gross Constituents & Trace Organics

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON
	Results	REPORTING LIMIT
COMPOUND	ni/L (ppb)	nl/L (ppb)
COM OUND	пт/ц (рри)	mi/L (ppo)
Chloroethene (Vinyl Chloride)	ND	2
Dichloromethane (Methylene chloride)	ND	1
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.4	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2
		REPORTING
GROSS GAS CONSTITUENTS	RESULTS	LIMIT
	(%)	(%)
Oxygen	21	0.2
Nitrogen	79	0.2
Carbon Monoxide	ND	0.2
Methane	ND	0.2

ND = Not detected at or above reporting limit.

$\mathbf{Q}\mathbf{A}$	/	$\mathbf{OC}$	SUM	M	4RY

ND

\_\_\_\_\_\_\_

Gross Analysis Trace Analysis

Duplicate: Relative % Difference 3



LAB NUMBER: 100968-8 CLIENT: SCS ENGINEERS

JOB #: 0388042 SAMPLE ID: 1B-3 DATE RECEIVED: 07/03/90
DATE ANALYZED: 07/04/90
DATE REPORTED: 07/16/90

DATE REPORTED: 07/16/90

Report on Analysis of Gas Samples for Gross Constituents & Trace Organics

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

COMPOUND	Results nl/L (ppb)	CALDERON REPORTING LIMIT nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2
Dichloromethane (Methylene chloride)	ND	1
Trichloromethane (Chloroform)	ND	0.8
1,1,1.Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0,2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.4	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2
	D D CYLL TO	REPORTING
GROSS GAS CONSTITUENTS	RESULTS	LIMIT
	(%)	(%)
Oxygen	21	0.2
Nitrogen	79	0.2
Carbon Monoxide	ND	0.2
Methane	ND	0.2
Carbon Dioxide	ND	0.2

ND = Not detected at or above reporting limit.

Z Z	QA,	QC	SUMMAR	Υ.
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Gross Analysis Trace Analysis

01000 111111 0 10 11

Duplicate: Relative % Difference 3



0.2

LAB NUMBER: 100968-10 DATE RECEIVED: 07/03/90 CLIENT: SCS ENGINEERS DATE ANALYZED: 07/04/90 DATE REPORTED: 07/16/90

JOB #: 0388042 SAMPLE ID: 3A-3

Carbon Dioxide

Report on Analysis of Gas Samples for Gross Constituents & Trace Organics

CALDERON AMBIENT TESTING (CH&S Code 41805.5) METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON
	Results	REPORTING LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2
Dichloromethane (Methylene chloride)	ND	1
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.5	0.2
1,2-Dibromo ethane (EDB)	ND	0.5
Benzene	ND	2
		REPORTING
GROSS GAS CONSTITUENTS	RESULTS	LIMIT
	(%)	(%)
Oxygen	21	0.2
Nitrogen	7 9	0.2
Carbon Monoxide	ND	0.2
Methane	ND	0.2

ND = Not detected at or above reporting limit.

#### QA/QC SUMMARY

ND

\_\_\_\_\_\_\_ Gross Analysis Trace Analysis

Duplicate: Relative % Difference

3 <1



DATE RECEIVED: 07/03/90 LAB NUMBER: 100968-12 CLIENT: SCS ENGINEERS DATE ANALYZED: 07/04/90 JOB #: 0388042 DATE REPORTED: 07/16/90

SAMPLE ID: FIELD BLANK-3

Report on Analysis of Gas Samples for Gross Constituents & Trace Organics

CALDERON AMBIENT TESTING (CH&S Code 41805.5) METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORTING
	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2
Dichloromethane (Methylene chloride)	ND	1
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2
		REPORTING
GROSS GAS CONSTITUENTS	RESULTS	LIMIT
	(%)	(%)
Oxygen	0.6	0.2
Nitrogen	0.7	0.2
Carbon Monoxide	ND	0.2
Methane	ND	0.2
Carbon Dioxide	ND	0.2

ND = Not detected at or above reporting limit.

OA	/OC	SUMMARY	ľ

Trace Analysis Gross Analysis

Duplicate: Relative % Difference

3

<1

SAMPLE STATE	TION: 24/	12 - UP 2A	BA	SAMPLE I. D. NUMBER: 2/4-2/ BAG NUMBER:				
PROGRAM STA	AT: (DATE):	6/2 6/2	<u>0</u>					
POMP PLOY	POTOM	ETER READING	BUBBLE	FLOW METER	AVERAGE FLOW			
	BAG O	N BAG OFF	DIS. VOL	TIME FLOW (SEC) (cc/mm)	( ∞ / min )			
PROGRAM START	(1) (2) (3) (4) (5)	6+ 5.5 5-	3 3 3	30.06 5.99 27.77 6.48 27.63 6.51	6.33			
PROGRAM STOP	(1) (2) (3) (4) (5)	2 64 54	3 3 3	22.48 8.01 25.91 6.95 27.02 6.66	7.21			
SAMPLE /	ANALYSIS:	COMPOUNDS ATTACHMENT 1 VINYL CHLORIDE METHANE FIXED GASES OTHER		DETECTION LIMITS  AIB / LFG  AIR / LFG  AIR / LFG  AIR / LFG	SAMPLE AVERAGE FLOW 00/mm			
BATTERY		OK LOW		LEAK CHECK	]-ok			
	PRO	OGRAM STOP:	Overcust					

JOB NUMBER: SAMPLE LOCAT SAMPLE STATIC SAMPLE TY PROGRAM STAF	ERSONNEL: DEM (MW)  SAMPLE L D. NUMBER: \( \frac{1}{2} \)  OB NUMBER: \( \frac{0388092}{0388092} \)  BAG NUMBER: \( \frac{1}{2} \)  EQUIPMENT L D. NUMBER: \( \frac{1}{2} \)  AMPLE STATION NUMBER: \( \frac{1}{2} \)  SAMPLE TYPE: \( \text{AMBIENT AIR } \) INTEGRATED SURFACE SAMPLE \( \frac{1}{2} \)  FROGRAM START: (DATE): \( \frac{1}{2} \)  TIME: \( \frac{5}{2} \)  TIME: \( \frac{5}{2} \)  TIME: \( \frac{5}{2} \)  TIME: \( \frac{5}{2} \)								
	CALIBRATION TESTS:								
	POTOMETER READING	BUBBLE FLOW METER	AVERAGE FLOW						
	BAG ON BAG OFF	DIS. VOL TIME FLOW (cc) (SEC) (cc/mm)	(∝/min)						
PROGRAM START	(1) ~ <u>6.5</u> (2) <u>6+</u> (3) ~6.5 (4)	3 27.66 6.51 3 28.78 6.25 3 28.17 6.39	6.38						
PROGRAM STOP	(5)	3 24.81 7.26 3 25.47 7.07 3 27.03 6.66	& 7.00						
SAMPLE A	NALYSIS: COMPOUN ATTACHMEN VINYL CHLO METHANE FIXED GASE OTHER	AIR LFG PRIDE AIR / LFG AIR / LFG	SAMPLE AVERAGE FLOW @/mm						
BATTERY	CHECK: OK	LOW LEAK CHECK	OK OK						
OBSERVA	TIONS: PROGRAM START	T: Overcast							
	PROGRAM STOP	: Overcast							

PERSONNEL: DEM / MW SAMPLE L D. NUMBER: 14-21  JOB NUMBER: D388042.  SAMPLE LOCATION: 34472-DDWN EQUIPMENT L D. NUMBER:  SAMPLE STATION NUMBER: / A OTHER:  SAMPLE TYPE: AMBIENT AIR / INTEGRATED SURFACE SAMPLE / LFG / MIGRATION  PROGRAM START: (DATE): 6/20 TIME: 0800  PROGRAM STOP: (DATE): 6/21 TIME: 0800  PUMP FLOW CALIBRATION TESTS:								
FOMP PLOT	·		READING	80880	E FLOW METER		AVERAGE FLOW	
	8.	AG ON	BAG OFF	DIS. VOL	TIME FLO		( ∞ / min )	
PROGRAM START	(1) — (2) — (3) — (4) — (5) —		8 6.t 15.5	3 3 3	21.45 8. 24.19 7. 27.02 6.	44	7.34	
PROGRAM STOP	(1) — (2) — (3) — (4) — (5) —		<del>7</del> <del>7-</del> <del>7-</del>	3 3	21.13 S MBMBR 8m 24.31 22.24 S, 20.41 S.	0	8.18	
SAMPLE A	NALYSIS:	AT VIII ME FIX	COMPOUNDS TACHWENT 1 171- CHLORIDE ETHANE KED GASES THER		DETECTION LIMITS  AIR/LFG  AIR/LFG  AIR/LFG		SAMPLE AVERAGE FLOW cc/mm	
BATTERY CHECK: OK LOW LEAK CHECK OK  OBSERVATIONS: PROGRAM START: Over Cart							<b>ж</b>	
		PROGR	AM STOP:	Over	cest			

SAMPLE LOCA		BAG NUMBER:	EQUIPMENT L. D. NUMBER:					
PROGRAM STA		PATED SURFACE SAMPLE / LFG / TIME:TIME:TIME:	MIGRATION					
<del></del>	POTOMETER READING	BUBBLE FLOW METER	AVERAGE FLOW					
	BAG ON BAG OFF	DIS. VOL TIME FLOW (cc) (SEC) (cc/mm)	( ∞ / min )					
PROGRAM START	(1) 6- (2) 6+ (3) 6+	3 28.17 6.39 3 33.39 5.39 3 29.66 6.07	5.95					
PROGRAM STOP	(5)	3 27.93 7.85 3 20.6 8.77 3 21.23 8.48	8.35					
SAMPLE	ANALYSIS: COMPOUNDS  ATTACHMENT 1  VINYL CHLORIDE  METHANE  FIXED GASES  OTHER	DETECTION LIMITS  AIR/LFG  AIR/LFG  AIR/LFG  AIR/LFG	SAMPLE AVERAGE FLOW & /mm					
BATTERY CHECK: OK LEAK CHECK OK  OBSERVATIONS: PROGRAM START: Over Cart								
	PROGRAM STOP:	Over cart						

SAMPLE STATK SAMPLE T PROGRAM STATE PROGRAM STO	DB NUMBER: 034 1047.  AMPLE LOCATION: 24-12 EQUIPMENT I. D. NUMBER:  AMPLE STATION NUMBER: 20 OTHER:  SAMPLE TYPE: AMBIENT AIR / INTEGRATED SURFACE SAMPLE / LFG / MIGRATION  ROGRAM START: (DATE): 421 1/27 TIME: 0800  PUMP FLOW CALIBRATION TESTS:									
<del> </del>	AVERAGE FLOW									
		BAG ON	BAG OFF	DIS. VOL	TIME FLOW (SEC) (cc/mn	a (DE/Min)				
PROGRAM START	(1) (2) (3) (4) (5)		7 6+ 5+	3 3 3	22.48 8.00 25.9/ 6.9 2782 6.6	5 7.21				
PROGRAM STOP	(1) (2) (3) (4) (5)		-8 -9 -9- 	3 3	22.74 7.9 21.07 8.5 22.83 7.8	<u>u</u> 8.11				
SAMPLE A	MALYS	A: VII M Fl	COMPOUNDS TTACHMENT! NYL CHLORIDE ETHANE XED GASES	·	DETECTION LIMITS  AIR/LFG  AIR/LFG  AIR/LFG  AIR/LFG	SAMPLE AVERAGE FLOW oc/mm				
		0	THER							
BATTERY	CHECK:	— <b>П</b> ок	C LOW		LEAK CHECK	☑ oĸ				
OBSERVA	OBSERVATIONS: PROGRAM START: Overcent									
		PROGR	NAM STOP:	Overca	xt					

PERSONNEL: _ JOB NUMBER:		34804.		BAC	SAMPLE L D. NUMBER: <u>4B-22</u> BAG NUMBER:				
SAMPLE LOCAT			DIRECTION 13		XUIPMENT I. D. NO HER:	MBER:			
SAMPLE T		AMBIENT A		RATED SURFACE	SAMPLE /	LFG /	MIGRATION		
PROGRAM STA	•	•	9/1/1 4	<del></del>	ME: 0800		<del></del>		
PROGRAM STO	•		[/V///2.[-/	<u>(ρ/22</u> π	ME:	<u> </u>	<del></del>		
PUMP FLOY	V CALI	ROTOMETE		DI IDDI E	FLOW METER		AVERAGE FLOW		
	-	BAG ON	BAG OFF	DIS. VOL	TIME	FLOW cc/mm)	(∞/min)		
PROGRAM START	(1) (2) (3) (4) (5)		<u>10</u> 7 <b>41</b> 2-	3 3 3	71.23 24.04		7.63		
PROGRAM STOP	(1) (2) (3) (4)			3 3 3	18.59 19.02 18.91		9.55		
SAMPLE A	(5)	X VI M	COMPOUNDS  ITACHMENT P  NYL CHLORIDE  ETHANE  XED GASES		ETECTION LIMITS  AIR / LFG  AIR / LFG	<b></b>	SAMPLE AVERAGE FLOW oc/mm		
		0	THER		AIR/LFG	ECK 🗗	OK .		
OBSERVA			LOW		LEAK CH	EGK [/]			
		PROGR	RAM STOP:						

PERSONNEL: .	· 5	EM		s	AMPLE I. D. NUMBEI	R: <i>1A</i>	-22		
JOB NUMBER:		03480Y	2		BAG NUMBER:				
SAMPLE LOCA	TION:	24- I	BUN		EQUIPMENT I. D. NUMBER:				
SAMPLE STATI	ON NUM	BER:	7	0	THER:				
SAMPLE T	YPE:	AMBIENT A	B NTEG	RATED SURFACE	ESAMPLE /	LFG /	MIGRATION		
PROGRAM STA	PT: (DA	TE):	13/2 61	21	TME: 080	<del></del>			
PROGRAM STO	XP: (DA	TE):	1/2 4	122	THE: DY	, 	<del></del>		
PUMP FLOY	N CAL	BRATION T	ESTS:						
ROTOMETER READING			BUBBL	E FLOW METER	AVERAGE FLOW				
		BAG ON	BAG OFF	DIS. VOL (∞)		FLOW c/mm)	( <b>∞</b> / min )		
PROGRAM START	(1)		7		21./3	8.52			
	(2)		3-	3	22.24	8.09	8.48		
	(3)		3-		20.41	8.82			
	(4)								
	(5)								
PROGRAM STOP	(1)		10	3	14.36	z.53			
	(2)		10-	3		1.79	12.13		
	(3)		10-	3	14.91 1	207	1		
	(4)								
	(5)								
SAMPLE	ANALYS		COMPOUNDS	·	DETECTION LIMITS		SAMPLE AVERAGE FLOW cc/mm		
		М	NY <del>L CHLO</del> RÍDE ETHANE XED GASES		AIR/LFG AIR/LFG AIR/LFG		10.31		
			THER		AM7070				
BATTERY	CHECK	(: ☑ ok	LOW		LEAK CHE	CK 🛮	OK		
02050	710110								
OBSERVA	MONS	: PROGR	AM STAMT:	Then (as					
		PROGR	NAM STOP:	vercast					

PERSONNEL: _ JOB NUMBER:		DEM 038809			SAMPLE I. D. NUMBER: 3B-22 BAG NUMBER:				
SAMPLE LOCA					EQUIPMENT L.D. NUMBER:				
SAMPLE STATK		ER:	<u> </u>		OTHER:				
SAMPLE T	YPE: (	AMBIENT AL	B INTEG	RATED SURFA	CE SAMPLE	LFG /	MIGRATION		
PROGRAM STA	RT: ( DAT	E):	Mr. 4/	21	TME:				
PROGRAM STO	P: (DAT	E):	122	1/27	TME:	800	<del> </del>		
PUMP FLOV	V CALI	BRATION T	ESTS:			· · · · · · · · · · · · · · · · · · ·			
	ROTOMETER READING			BUBE	BLE FLOW METER	AVERAGE FLOW			
		BAG ON	BAG OFF	DIS. VOL (∞)	TIME (SEC)	FLOW (cc/mm)	( ∞ / min )		
PROGRAM START	(1)		A 14	_3		7.85			
	(2)		<u>15</u>	3	20.61		8.35		
	(3)		_/3	3	21.23	8.48			
	(4)			<del></del> -	<del></del>				
	(5)					•			
PROGRAM STOP	(1)		_/o	3	18.49	9.7-3			
	(2)		10		19.04	9.45	9.67		
	(3)		10	3	18.32	9.83			
	(4)		<del></del>						
	(5)	<del></del>							
SAMPLE	PYJANA	VI	COMPOUNDS TTACHMENT! NYL CHLORIDE ETHANE IXED GASES		DETECTION LIN AIR/LFG AIR/LFG AIR/LFG AIR/LFG	ATS	SAMPLE AVERAGE FLOW oc/mm		
		0	THER						
BATTERY	CHECK	: <del>2</del>	< ☑ ro∧	v .	LEAK (	CHECK 🖸	OK		
OBSERVA	TIONS	PROGF	RAM START:						
		PROGR	RAM STOP:						

PERSONNEL: JOB NUMBER: SAMPLE LOCAT	03	2474	2-UP	BA	SAMPLE L D. NUMBER: 2A-24  BAG NUMBER:			
SAMPLE STATIC	NUMBE	R:	24	01	THER:			
SAMPLE TO	PE: (	MBIENTAH	R / INTEG	PATED SURFACE		/ MIGRATION		
PROGRAM STAF	•	' 7		1- 1		99		
PROGRAM STOR	·	,	123 6	/24 T	ME:			
PUMP FLOW	<del></del>					<del></del>		
	<u>'</u>	POTOMETE	RREADING		FLOW METER	AVERAGE FLOW		
		BAG ON	BAG OFF	DIS. VOL (∞)	TIME FLOW (SEC) (cc/mm)	( ∞ / min )		
PROGRAM START	(1) (2) (3) (4) (5)		8 9 9-	3 3 3	27.74 1.92 21.07 8.54 22.83 7.34	8.11		
PROGRAM STOP	(1) (2) (3) (4) (5)		12 7 4+	3 3 3.	15.64 11.51 20.70 9.70 18.09 9.95	10.05		
SAMPLE A	HALYSI	VII MI FII	COMPOUNDS. TACHMENT 1 NYL CHILDRIDE ETHANE XED GASES THER	DETECTION LIMITS  SAMPLE AVERA FLOW 00/11  AIR/LFG  AIR/LFG  AIR/LFG				
BATTERY	CHECK:	OK	COM		LEAK CHECK	ОК		
OBSERVA	TIONS:	PROGR	AM START:					
		PROGR	UM STOP: _	Baromete O	x 30.010 in	of the at		

PERSONNEL: DOM SAMPLE L D. NUMBER: YA - 24  JOB NUMBER: 0388042.00 BAG NUMBER:  SAMPLE LOCATION: DIZ - UP EQUIPMENT L D. NUMBER:  SAMPLE STATION NUMBER: YA OTHER:  SAMPLE TYPE: AMBIENTAIR   INTEGRATED SURFACE SAMPLE   LFG   MIGRATION  PROGRAM START: (DATE): 122 4 23 TIME: PRO 1586  PROGRAM STOP: (DATE): 1423 4 8 24 TIME: 1580  PUMP FLOW CALIBRATION TESTS:								
FUMP FLOW	1	OTOMETER		BUBBLI	FLOW METER		AVERAGE FLOW	
		BAG ON	BAG OFF	DIS. VOL	TIME (SEC)	FLOW (cc/mm)	( ∞ / min )	
PROGRAM START	(1) - (2) - (3) - (4) -		/0 /0 /0	3 3 7	19.39 19.71 17.39	928	9.59	
PROGRAM STOP	(1) - (2) - (3) - (4) - (5) -		17 10 10	3 3 3	15.84 19.16 19.63	7.39	9.97	
SAMPLE A	MALYSIS	AT VIII ME FIX	COMPOUNDS TACHMENT 1 TYL CHLORIDE ETHANE KED GASES THER		DETECTION LIN (AIR/LFG AIR/LFG AIR/LFG AIR/LFG	ACTS	SAMPLE AVERAGE FLOW 00/mm	
		<del></del>	LOV			СНЕСК 🔲	OK	
OBSERVA	HUNS:							

PERSONNEL: _ JOB NUMBER:	DE	M 8042			SAMPLE BAG NUN		BER:	1-24
SAMPLE LOCAT			YHR -i	Sour		ENT L D. I	NUMBER: _	
SAMPLE STATIC		. 1						
SAMPLE TO		BIENT AIR		PATED SUPF				MIGRATION
PROGRAM STAF	•		22 (	124		-65 080		
PROGRAM STOR				127	TIME:	45-00	750	<i>,</i>
PUMP FLOW	· · · · · · · · · · · · · · · · · · ·			<del> </del>				<del></del>
	ROTOMETER READING			BUBBLE FLOW METER				AVERAGE FLOW
	В	AG ON B	MG OFF	DIS. VOL (∝)		TIME SEC)	FLOW (cc/mm)	( ∞ / min )
PROGRAM START	(1)		10				12.5.3	
	(2)		10-	3		15.27	11.79	12.28
	(3) —	<del></del>	<del></del>		4	7. 7/	12.07	
	(4) —	<del></del>						
	(5) —	<del></del>						
PROGRAM STOP	(1) _	·—···	10	3		14.27	1261	
	(2)	<u> </u>	10	3	/	3.98	12.88	12.58
	(3)		10	3		14.71	12.24	
	(4) _							
	(5) —	<del></del>						
SAMPLE A	NALYSIS:	VINYI METI FIXE	MPOUNDS CHMENTA CHLORIDE LANE D GASES ER		Alf Alf	PILEG ALLEG ALLEG ALLEG ALLEG	TS.	SAMPLE AVERAGE FLOW @/mm
BATTERY	CHECK:	Ок	☐ LOY			LEAK C	HECK 🛮	ОК
OBSERVA			START:					
		PROGRAM	A STOP:			<i>J</i>		

PERSONNEL:	Den	·····		SAMPLE L.D. NUI	WBER: 3/	1-24		
JOB NUMBER:				BAG NUMBER:				
SAMPLE LOCA	TION: $DIR$ -	DONN	<del></del>	EQUIPMENT L.D. NUMBER:				
SAMPLE STAT	ON NUMBER:	34		OTHER:	<u> </u>			
SAMPLE 1	TYPE: AMBIENT	NR / INTEG	RATED SURF	ACE SAMPLE	/ LFG /	MIGRATION		
PROGRAM STA	ART: (DATE):	bette 1	123	TME:	150	· -		
PROGRAM STO	OP: (DATE):	43	1/24	TME:	150	°0		
PUMP FLO	W CALIBRATION	TESTS:		·				
	ROTOMET	ER READING	BUE	BLE FLOW METER	1	AVERAGE FLOW		
	BAG ON	BAG OFF	DIS. VOL	TIME (SEC)	FLOW (cc/mm)	( ∞ / min )		
PROGRAM START	(1)	R	3	16.4	10.97			
	(2)	12	]	17.28	10.43	10.65		
	(3)	12	2	1.03	10.57			
	(4)	· ——		<del></del>				
	(5)	-						
PROGRAM STOP	(1)		_ 3	17.79	10.12			
	(2)	104	3	18.10	994	9.82		
	(3)	10		19.12	941			
	(4)	-						
	(5)	-		· · · · · · · · · · · · · · · · · · ·				
SAMPLE	ANALYSIS:	COMPOUNDS		DETECTION LIA	AITS	SAMPLE AVERAGE FLOW comm		
		ATTACHMENT 1 VINYL CHLORIDI		AIR/LFG AIR/LFG				
		METHANE FIXED GASES		AIR/LFG		10.24		
		OTHER		AIR/LFG				
BATTERY	CHECK: P	ok 🛮 Lov	<b>~</b>	LEAK (	CHECK [	OK		
OBSERV	ATIONS: PROX	GRAM START:						
	PRO	GRAM STOP:	the 5h	rip shar.	I had	stopped in		
		on 6/2	23, 6	+ pumps	worke	~ ?		
12 / 84		Pestar	ted for	r 6/24.		•		
D 14.	+ A					_		

PERSONNEL: DEM  108 NUMBER: 9388042  SAMPLE LOCATION: DIR UP  SAMPLE STATION NUMBER: 43  SAMPLE TYPE: AMBIENT AIR INTEGRA				SAMPLE LD. NUMBER: 43-25  BAG NUMBER: 43-25  BAG NUMBER:  BOUIPMENT LD. NUMBER:  OTHER:  WATED SURFACE SAMPLE / LFG / MIGRATION			
PROGRAM STA			6124	T	ME:		
PROGRAM STO					ME: 3:00		
PUMP FLOY	<del></del>	<del></del>		0,100,5		1	
		BAG ON	BAG OFF	DIS. VOL	TIME FLOW (SEC) (cc/mm)	AVERAGE FLOW ( ∞ / min )	
PROGRAM START	(1) (2) (3) (4) (5)		<u>                                     </u>	3 3 7	15.06 11.95 18.22 9.44 16.13 11.16	10.99	
PROGRAM STOP	(1) (2) (3) (4) (5)			3 _3 _3	18.43 9.77 18.43 9.77 20.16 9.99 18.02 9.99	9.63	
SAMPLE A	MALYSI	VIII MI FI	COMPOUNDS  TACHMENT  NYL CHLORIDE  ETHANE  XED GASES  THER		ETECTION LIMITS  AIR/LFG  AIR/LFG  AIR/LFG	SAMPLE AVERAGE FLOW @/mm	
BATTERY		OK	LOW	Class + 5	LEAK CHECK	OR	
		PROGR	AM STOP:	Sung			

PERSONNEL: DEMY  JOB NUMBER: 03880 42  SAMPLE LOCATION: 24 HP - DOWN  SAMPLE STATION NUMBER: 1A					SAMPLE L. D. NUMBER:			
SAMPLE T	YPE: AX	ABIENT ALE	P / INTEGE	PATED SURFACE			MIGRATION	
PROGRAM STA			1/24		ME: <u>34</u> ME: <u>3:</u> 0			
PUMP FLOV	•		7	·	v.c			
	POTOMETER READING			BUBBLE	FLOW METER		AVERAGE FLOW	
	В	AG ON	BAG OFF	DIS. VOL	TIME (SEC)	FLOW (cc/mm)	(∞/min)	
PROGRAM PROGRAM	(1) — (2) — (3) — (4) — (5) —		10	3 3 3 3	14.27 13.98 14.71	12.61 12.88 12.24 9.93	12.5%	
STOP	(1) — (2) — (3) — (4) — (5) —		9 0	3 3	19.26	196	10 ० थ	
SAMPLE A	Analysis:	VIN ME FIX	TACHMENT 1 IYL CHLORIDE THANE (ED GASES HER	) . (	AIR/LFG AIR/LFG AIR/LFG AIR/LFG	ΠS	SAMPLE AVERAGE FLOW &/mm	
BATTERY CHECK: OK LOW			LEAK CHECK OK					
OBSERVATIONS: PROGRAM START:								
		PROGR	AM STOP:					

PERSONNEL: DEM  JOB NUMBER: 0388042  SAMPLE LOCATION: DIR - DOWN				BAC	SAMPLE I. D. NUMBER: 34-25  BAG NUMBER:  EQUIPMENT I. D. NUMBER:				
SAMPLE STATIC	M NUMB	ER:	<b>3</b> 4	on	HER:				
SAMPLE TO	PE:	AMBIENT A	INTEGR	RATED SUPFACE		/ LFG /	MIGRATION		
PROGRAM STAP		-	124		VVC-1	3:02			
PROGRAM STOR		-,-	/25		ME:	3:00	<del></del>		
PUMP FLOW	<del></del>	<del></del>	<del></del>						
	<b></b>	POTOMETE	R READING		FLOW METER		AVERAGE FLOW		
		BAG ON	BAG OFF	DIS. VOL (cc)	TIME (SEC)	FLOW (cc/mm)	( ∞ / min )		
PROGRAM START	(1) (2) (3) (4)		11 10 + 10	3 -3 -3	17.79 18.10 19.12	10.12	9.82		
PROGRAM STOP	(5) (1) (2) (3) (4) (5)		9 9 8	3 3 3	19.41 19.88 20.14	9.05	9. <b>89</b>		
SAMPLE ANALYSIS: COMPOUNDS  ATTACHMENT 1 VINYL CHLORIDE METHANE FIXED GASES OTHER				DETECTION LIMITS  AIR / LFG AIR / LFG AIR / LFG AIR / LFG			SAMPLE AVERAGE FLOW 00/mm		
BATTERY CHECK: OK LOW				1 1	LEAK CHECK OK				
OBSERVATIONS: PROGRAM START: Clean 10/ gusting somes									
		PROGR	RAM STOP:				· · · · · · · · · · · · · · · · · · ·		

PERSONNEL: _ JOB NUMBER: SAMPLE LOCAT SAMPLE STATIC	ПОN: _	38804 34 HR	12 2 - DOWN 1B	BAC	SAMPLE I. D. NUMBER:				
SAMPLE T	YPE.	AMBIENT AL	P / INTEGE	PATED SUPFACE	SAMPLE /	LFG /	MIGRATION		
PROGRAM STAI	RT: ( DATI	E): <u>6/</u>	24		ME:3:00				
PROGRAM STO	P: (DAT	E):	125	π	ME: 3:00				
PUMP FLOW	V CALIE	RATION T	ESTS:	· <del></del>					
		ROTOMETE	R READING	BUBBLE	FLOW METER		AVERAGE FLOW		
		BAG ON	BAG OFF	DIS. VOL (∝)		.OW /mm)	( ∞ / min )		
PROGRAM START	(1) (2) (3) (4) (5)		<u>((</u>			.99 5.91 5.46	11.55		
PROGRAM STOP	(1) (2) (3) (4) (5)		10 9 10	3 3 3 .	20.13 5	.94	9.31		
SAMPLE A	NALYSI	VIII MI FII	COMPOUNDS FTACHMENT? NYL CHLORIDE ETHANE ETHANE XED GASES THER	DETECTION LIMITS  AIR/LFG  AIR/LFG  AIR/LFG  AIR/LFG			SAMPLE AVERAGE FLOW &/mm		
BATTERY				ــــا إلى	LEAK CHECK OK				
		PROGR	IAM STOP:						

	DEM 63880 TION: 24 ON NUMBER: _	4D-UD	BA	SAMPLE L D. NUMBER: 28-25  BAG NUMBER: EQUIPMENT L D. NUMBER: OTHER:				
SAMPLE T	YPE: AMBIENT	BIR / INTEGR	RATED SURFACE	SAMPLE / LFG	/ MIGRATION			
	RT:(DATE): P: (DATE): V CALIBRATION	•		ME: <u>3:00</u> ME: <u>3:00</u>				
	POTOME	TER READING	BUBBLE	FLOW METER	AVERAGE FLOW			
	BAG ON	BAG OFF	DIS. VOL (∝)	TIME FLOW (SEC) (cc/mm	) (∞/min)			
PROGRAM START	(1) (2) (3) (4) (5)	7 3 6+	3 3 3	24.76 1.27 25.61 1 00 26.37 6.57				
PROGRAM STOP	(1) (2) (3) (4) (5)	<del>-</del>	3 <b>%</b> 3 3	23.91 7.53 24.53 7.34 22.67 7.94	, 1			
SAMPLE A	NALYSIS:	COMPOUNDS ATTACHMENT 1 VINYL-CHLORIDE METHANE FIXED GASES OTHER		ETECTION LIMITS  (AIR / LFG  AIR / LFG  AIR / LFG  AIR / LFG	SAMPLE AVERAGE FLOW & /mm			
BATTERY	CHECK:	OK LOW		LEAK CHECK	OK			
OBSERVA	TIONS: PRO	GRAM START:	Ober +	Sunsy				
	PRO	GRAM STOP:						

PERSONNEL: _ JOB NUMBER:					SAMPLE LD. NUMBER: 23-26				
SAMPLE LOCAT			- 11P		AG NUMBER:				
SAMPLE COCA		-D. ~	B		EQUIPMENT I. I	U. NUMBER:			
SAMPLESIAIR	ON NOMB	EH:	<i>KU</i>		THER:				
SAMPLE T	YPE:	AMBIENT AIR		RATED SURFAC	····		/ MIGRATION		
PROGRAM STA	RT: ( DATE	,	6/243	<del></del>		:00			
PROGRAM STO	P: (DATE	≣): <i>(</i>	, /26		TIME:	00:00			
PUMP FLOW	CALIB	RATION T	ESTS:	<u></u>					
	POTOMETER READING			BUBBL	E FLOW METE	AVERAGE FLOW			
		BAG ON	BAG OFF	DIS. VOL (∞)	TIME (SEC)	FLOW (cc/mm)	( ∞ / min )		
PROGRAM START	(1)		<del></del>	3	20 23.9	1 4.53			
	(2)		<del>-7</del>	_ 3	24.5		7.60		
	(3)		<u>8</u>	3	22.6	7 7.94	η.Ψ-		
	(4)								
	(5)								
PROGRAM STOP	(1)		9	_ 3	20.65	5.72			
	(2)		8		20.51	y.78	8.97		
	(3)		8		19.14	9.40			
	(4)								
	(5)								
SAMPLE ANALYSIS: COMPOUNDS ATTACHMENT'S VINYL CHLORIDE METHANE			DETECTION LIMITS  AUR / LFG  AUR / LFG  AUR / LFG			SAMPLE AVERAGE FLOW &/mm			
			(ED GASES HER		AIR/LFG	_			
BATTERY	CHECK:	☑ ok	☐ row	, ]	LEAK	CHECK	ÓK		
OBSERVA	TIONS:	PROGR	AM START:	Sunny					
		PROGR	AM STOP:	Suny					

PERSONNEL: _ JOB NUMBER: SAMPLE LOCAT	<u>038.</u> non: <u>7</u>	8042 DIR-V	P	BAG	SAMPLE L. D. NUMBER: 44-26 BAG NUMBER:			
SAMPLE T	YPE: AW	BIENTAR	/ INTEGR	NATED SURFACE			MIGRATION	
PROGRAM STAN PROGRAM STON PUMP FLOW	P: (DATE):		26		WE: 3:0			
POMP PLOW		TOMETER		BUBBLE	FLOW METER	<u> </u>	AVERAGE FLOW	
	8	AG ON	BAG OFF	DIS. VOL	TIME (SEC)	FLOW (cc/mm)	( ∞ / min )	
PROGRAM START	(1) — (2) — (3) — (4) — (5) —		10 4	-3 -3 -3	18.43 20.16 18.02	9.47 4.93	9.56	
PROGRAM STOP	(1) — (2) — (3) — (4) — (5) —		9 8 5	3 3 .	21.48 22-09 21.73	4.15 4.24	8.27	
SAMPLE A	NALYSIS:	VIN ME FIX	OMPOUNDS  ACHMENT 1 YL CHLORIDE THANE ED GASES HER	D	ETECTION LIM  AIF / LFG  AIR / LFG  AIR / LFG  AIR / LFG	NTS	SAMPLE AVERAGE FLOW @/mm	
BATTERY	CHECK:	OK	Low	,	LEAK C	HECK	ОК	
OBSERVA	TIONS:	PROGRA	M START: _S	Dunnig.				
		PROGRA	M STOP:	Baronel	3	٥.٥١		

PERSONNEL: .		DEM			SAMPLE L.D. NUMBER: 1A-26				
JOB NUMBER:			1472 - Dua	• /	G NUMBER:				
SAMPLE STATI	_	-			OUIPMENT L.D. NUMBER:				
SAW-LE STATE	ON NOME	кл. ——			inen:				
SAMPLE T	YPE:	AMBIENT AH	P / INTEGE	NATED SURFACE	SAMPLE / LFG	/ MIGRATION			
PROGRAM STA					TME: 3:00				
PROGRAM STO	P: (DAT	E):	6/24		ME:				
PUMP FLOV	V CALIE	BRATION T	ESTS:						
		POTOMETE	R READING	80880	FLOW METER	AVERAGE FLOW			
		BAG ON	BAG OFF	DIS. VOL (∞)	TIME FLOW (SEC) (cc/mm	) (∞/min)			
PROGRAM START	(1)		10	3	19.13 992	<b>-</b>			
	(3)		10	_ 3	17.19 10.49				
	(4)					-			
PROGRAM STOP	(1)		10-	3	Assess 18.43 9.2 Assess 19.27 9.2	1.( ]			
	(3)		M 9	3	6MM 20.23 8.9	<del></del>			
	(4)					_			
SAMPLE A	ANALYS	AT VIII MI	COMPOUNDS  TACHMENT 1  NYL CHLORIDE ETHANE  XED GASES THER	ţ	DETECTION LIMITS  AIR/LFG  AIR/LFG  AIR/LFG  AIR/LFG	SAMPLE AVERAGE FLOW &/mm			
BATTERY	CHECK:	□ ок	row		LEAK CHECK	<b>□</b> oκ			
OBSERVA	TIONS:	PROGR	AM START:	Drisonig					
		PROGR	IAM STOP:	Sung					

PERSONNEL: _ JOB NUMBER: SAMPLE LOCAT SAMPLE STATIC	<u>038</u> 70n: <u>7</u>	DIR - )		SAMPLE I. D. NUMBER: 3A-26  BAG NUMBER:  EQUIPMENT I. D. NUMBER:  OTHER:					
SAMPLE T	YPE: A	MBIENT AI	NTEGE	RATED SURFACE		/ LFG /	MIGRATION		
PROGRAM STAF	•	•	· · /		·	00			
PROGRAM STO	•		6/26		ME:3	:00			
PUMP FLOW	<del>1</del>					<del></del>	AVERAGE FLOW		
	ROTOMETER READING				BUBBLE FLOW METER				
		BAG ON	BAG OFF	DIS. VOL (∝)	TIME (SEC)	FLOW (cc/mm)	( ∞ / min )		
PROGRAM START	(1) . (2) . (3) .		9 7 7	3 3 3	19.41 19.88 20.11		9.09		
PROGRAM	(4)					<i>a</i> 32			
STOP	(1) (2) (3)		9 9 9	3 3	20.16 20.25 21.78	8.99 8.26	8.61		
	(4)								
SAMPLE A	NALYSIS	VIII MI FI	COMPOUNDS TACHMENT NYL CHLORIDE ETHANE XED GASES THER		AIR/LFG AIR/LFG AIR/LFG AIR/LFG	ATS	SAMPLE AVERAGE FLOW cc/mm		
BATTERY	CHECK:	Ок	row	,	LEAK	СНЕСК 🛮	ОК		
OBSERVA	TIONS:	PROGR	AM START:	lian t	Sum				
		PROGR	IAM STOP:						

PERSONNEL: _ JOB NUMBER:		DEM			SAMPLE LD. NUMBER: 18-26				
SAMPLE LOCAT			-Dogs		G NUMBER: DUIPMENT I. D. NU	1 405 D:			
SAMPLE STATE		15			HER:	MBEPC	<u> </u>		
SAMPLESIAIR	JA NUMBI			U	nen:				
SAMPLE T	YPE:	AMBIENT AH	<del>/</del>	RATED SURFACE		LFG /	MIGRATION		
PROGRAM STA		,	0/25 6/24		TIME: 3'.00				
PUMP FLOW	•	- /-		··	ME:				
POMP PLOT	$\overline{}$	ROTOMETE		BUBBLE	BUBBLE FLOW METER AVERAGE FLOW				
		BAG ON	BAG OFF	DIS. VOL	TIME	FLOW	( cc / min )		
PROGRAM START	(1) (2) (3) (4) (5)		10		18.63 20.13 19.29		9.31		
PROGRAM STOP	(1) (2) (3) (4) (5)			3 3 3		9.75 10.22 2.54	9.94		
SAMPLE A	NALYSI	Q1 VII ME FII	TACHMENT D NYL CHLORIDE ETHANE KED GASES THER	0	DETECTION LIMITS  AIR/LFG  AIR/LFG  AIR/LFG		SAMPLE AVERAGE FLOW cc/mm		
BATTERY	CHECK:	Ок	Low		LEAK CHE	CK 🗗	бк		
OBSERVA	TIONS:	PROGR	AM START:	Clair t	Suny	<i>₩</i> /	w breeze		
		PROGR	AM STOP:	Sung					

PERSONNEL:  JOB NUMBER:  SAMPLE LOCA  SAMPLE STATI  SAMPLE T  PROGRAM STA	TION:ON NUMBER: AM	BIENT AIR	- W_		SAMPLE L.D. NUMBER: 2B-27 BAG NUMBER: EQUIPMENT L.D. NUMBER: OTHER: FACE SAMPLE / LFG / MIGRATION TIME: 3:00 TIME: 3:00				
PUMP FLOY	<del></del>								
		AG ON	EADING BAG OFF	DIS. VOL	TIME	FLOW	AVERAGE FLOW ( ∞ / min )		
PROGRAM START PROGRAM STOP	(1) — (2) — (3) — (4) — (2) — (3) — (4) — (4) — (4)		9 9 9 10 9	(\omega) \( \frac{3}{3} \) \(	(SEC)  20.65 20.51 19.14  (8 ts.46  NAMED: 19.33	(x/mm) 4.72 4.78 7.40 9.31 1.52	F.97 9.53		
SAMPLE A	(5) -					4770	011515155		
JAMPEE ,		VINY METI FIXE	MPOUNDS ACHMENT 1 L-CHLORIDE HANE D GASES ER		DETECTION LIN AIR/LFG AIR/LFG AIR/LFG	415	SAMPLE AVERAGE FLOW &/mm		
BATTERY	CHECK:	OK	Low		LEAK C	HECK []	ОК		
OBSERVA	TIONS:	PROGRAM	A START:	Clean +	Samy				
		PROGRAM	A STOP:						

SAMPLE LOCAT SAMPLE STATIC SAMPLE T PROGRAM STATE PROGRAM STO	RT: (DATE):	4A AIR) I INTEGR	BAC EC OTI  ATED SURFACE	SAMPLE LD. NUMBER: 4A-27  BAG NUMBER: 4A-27  BAG NUMBER: 500 MIGRATION  TIME: 3'00  TIME: 3'00				
POMP FLOT	V CALIBRATION POTOME	TESTS:	BUBBLE	FLOW METER	<del> </del>	AVERAGE FLOW		
	BAG ON	-	DIS. VOL	TIME (SEC)	FLOW (cc/mm)	( ∞ / min )		
PROGRAM START PROGRAM STOP	(1) (2) (3) (4) (5) (1) (2) (3) (4)	9 9 9	3 3 3 -3 -3	21.48 22.09 21.73 7.46 17.21 18.32	4.38 \$.14 4.24 60.08 10.46 9.83	8.17 10.12		
	(5)			<u> </u>				
SAMPLE A		COMPOUNDS  ATTACHMENT 1 VINYL CHLORIDE METHANE FIXED GASES OTHER	DETECTION LIMITS  AIR/LFG  AIR/LFG  AIR/LFG  AIR/LFG			SAMPLE AVERAGE FLOW &/mm		
BATTERY	CHECK:	ÓK □ LOW	7	LEAK (	CHECK [	ОК		
OBSERVA	TIONS: PRO	GRAM START:	0K 50H	cry, c	lean +	Suny		
	PRO	GRAM STOP: <u>C</u>	henged to	Hay				

PERSONNEL: _ JOB NUMBER: SAMPLE LOCAT SAMPLE STATK SAMPLE T PROGRAM STA	O388645  TION:  DN NUMBER:  YPE: AMBIENTAIR	24 HR- DOWN 1A	BAG EOL OTH	SAMPLE L D. NUMBER: A - 24  BAG NUMBER: EQUIPMENT L D. NUMBER:  OTHER: OTHER: / LFG / MIGRATION  TIME: 3:06					
	P: (DATE):	1 ( 1		E: 3:00					
PUMP FLOW	CALIBRATION TI	ESTS:							
	POTOMETER	READING	BUBBLE F	LOW METER	AVERAGE FLOW				
	BAG ON	BAG OFF	DIS. VOL (cc)	TIME FLOW (SEC) (cc/mm)	( ∞ / min )				
PROGRAM START	(1) (2) (3) (4) (5)	10 10- 10-	3 3 B 3	18.43 9.77 19.27 9.34 20.23 8.90	7.34				
PROGRAM STOP	(1) (2) (3) (4) (5)		3 3 3	18.24 9.87 19.07 9.44 18.64 9.63	9.4 <b>5</b>				
SAMPLE A	AT VIN ME FIX	TACHMENT TYL CHLORIDE THANE ED GASES HER		TECTION LIMITS  AIR/LFG  AIR/LFG  AIR/LFG  AIR/LFG	SAMPLE AVERAGE FLOW &/mm				
BATTERY CHECK: OK LOW LEAK CHECK OK  OBSERVATIONS: PROGRAM START: Clear 47 / 4 wind									
	PROGRAM STOP: Changed Da Herry								

SAMPLE LOCA	DEM <u>D388043</u> TION: <u>DIR</u> - ON NUMBER:		BAG	SAMPLE I. D. NUMBER: 3A - 27  BAG NUMBER:  EQUIPMENT I. D. NUMBER:					
SAMPLE T	YPE: AMBIENT A	IR) / INTEGR	ATED SURFACE		/ MIGRATION				
PROGRAM STA		6/26	<del></del>	WE: 3'06 WE: 3:00					
70 1201	<del></del>	R READING	BUBBLE	FLOW METER	AVERAGE FLOW				
	BAG ON	BAG OFF	DIS. VOL	TIME FLOW (SEC) (cc/mm)	( ∞ / min )				
PROGRAM START	(1) (2) (3) (4) (5)	9 9+ 9	3 3 3 3	20.16 8.93 20.25 8.89 21.38 4.26	<del>-</del>				
PROGRAM STOP	(1) (2) (3) (4) (5)	<u>10</u> <u>9</u> <u>9</u>	3 3 3	18.36 9.80 21.18 8.50 20.32 8.86	9.05				
SAMPLE A	V V M F	COMPOUNDS  TTACHMENT 1  NYL CHLORIDE  ETHANE  IXED GASES  THER	) )	ETECTION LIMITS  ALR/LFG  AIR/LFG  AIR/LFG  AIR/LFG	SAMPLE AVERAGE FLOW cc/mm				
	BATTERY CHECK: OK LEAK CHECK OK  OBSERVATIONS: PROGRAM START: COM & Summy								
	PROGR	RAM STOP: U	ranged tour	Hny					

PERSONNEL: _ JOB NUMBER:	03	DE1 88042	u		SAMPLE I. D. NUMBER: 13-27 BAG NUMBER:				
SAMPLE LOCAT			(2K)		XUIPMENT I. D. NI	MARED.			
SAMPLE STATIC			113		OTHER:				
SAMPLE STATE					nen.	<del></del>			
SAMPLET	PE: A	BIENT AIR	, ,	NATED SURFACE			MIGRATION		
PROGRAM STAF	RT: ( DATE ):		6/26	Ti	ME:		<del></del>		
PROGRAM STOR	P: (DATE)		6/27		ME: <i>3:0</i>	บ	<del></del>		
PUMP FLOW	/ CALIBRA	ATION TE	STS:						
	RC	TOMETER	READING	BUBBLE		AVERAGE FLOW			
	В	AG ON	BAG OFF	DIS. VOL (œ)	TIME (SEC) (	FLOW cc/mm)	( ∞ / min )		
PROGRAM START PROGRAM STOP	(1) — (2) — (3) — (4) — (5) — (1) — (2) — (3) — (4) — (4) —		/0 /0 /0 /0 /0 /0+ /0	3 3 3 3 3	18.46 17.61 18.29 18.63 18.67	7.84 9.51 9.98	9.94 9.71		
	(5) -			<del></del>					
SAMPLE ANALYSIS: COMPOUNDS DETECTION LIMITS ATTACHMENT VINYL CHLORIDE METHANE FIXED GASES OTHER  DETECTION LIMITS AIR/LFG FLOW 00/mm  AIR/LFG 9.83							I		
BATTERY	CHECK:	OK	Low	,	LEAK CH	ECK []	ÓK		
OBSERVA	TIONS:	PROGRA	M START: _(	Pour +s	my w/	strong	Whona		
		PROGRA	M STOP:						

T:(DATE): (DATE	):	<del></del>	RATED SUF	FACE SAN			
: (DATE	):				Bias		/ MIGRATION
CALIBR	•2				Biod		
	RATION T	ESTS:		,,,,,			
P	<del></del>	R READING	BL	JBBLE FLO	W METER	<del></del>	AVERAGE FLOW
	BAG ON	BAG OFF			TIME (SEC)	FLOW (cc/mm)	( ∞ / min )
(1) - (2) - (3) -		<u>10</u> <u>9</u> <u>9</u>	<u>3</u> <u>3</u> <u>3</u>		19.33	9.35 9.31 9.52	9.53
(4) -						61/	
<ul><li>(1)</li><li>(2)</li><li>(3)</li></ul>		9 9 -		<del></del>	19.26	7.35	9.47
(4) . (5) -							
NALYSIS	AT VIII	TTACHMENT 1 NYL CHLORIDE ETHANE XED GASES		A	IR/LFG IR/LFG IR/LFG	TS	SAMPLE AVERAGE FLOW &/mm
HECK:					LEAK C	HECK [	ÓК
10 <b>NS</b> :	PROGR	nd start: _(	Clean +	Sam	y 6/27	; Ove	1cast W/S wms
	(1) - (2) - (3) - (5) - (1) - (2) - (3) - (4) - (5) - (5) - (1) - (5) - (1) -	(2) (3) (4) (5) (1) (2) (3) (4) (5)  NALYSIS:  CHECK: OK	(1)	(1)	(1)	(a) (SEC)  (1)	(a) (SEC) (ac/mm)  (1)

PERSONNEL: JOB NUMBER: SAMPLE LOCATE SAMPLE STATE SAMPLE TO PROGRAM STATE PROGRAM STO	ON NUMBER YPE: AA	BIENT AIR	A NTEG	BA EX OT  RATED SURFACE  \(\frac{4}{2}\text{9}\) T	MPLE L D. NUMBER:		
PUMP FLOY			·				
	PC	TOMETER	READING	BUBBLE	FLOW METER		AVERAGE FLOW
	В	AG ON	BAG OFF	DIS. VOL	TIME (SEC) (	FLOW cc/mm)	(∞/min)
PROGRAM START	(1) — (2) — (3) — (4) — (5) —		/o _/( _/o	<u>3</u> <u>3</u> <u>3</u>	17.86 1	0.08 10.46 9.83	10.12
PROGRAM STOP	(1) — (2) — (3) — (4) — (5) —		<u>10</u> <u>9</u> <u>10</u>	3 3 3	20.41	9.65 8.82 9.84	7.44
SAMPLE A	NALYSIS:	AT VIN ME FIX	TACHMENT 1 YL CHLORIDE THANE LED GASES HER	)	ETECTION LIMITS  AIR/LFG  AIR/LFG  AIR/LFG  AIR/LFG		SAMPLE AVERAGE FLOW @/mm
BATTERY	CHECK:	□ ∕ ок	☐ row	<u>'</u> ]	LEAK CHE	ck 🗹	ок
OBSERVA	TIONS:			<del></del>			

PERSONNEL: _	· DQ	ч	s	MPLE L D. NUMBER:	A-12107 30
JOB NUMBER:	0.388		ВА	G NUMBER:	<del></del>
SAMPLE LOCAT	10N:	1HE- DOWN	K	QUIPMENT L.D. NUMBER:	
SAMPLE STATIC	ON NUMBER: .		01	HER:	
SAMPLE T	YPE: AMBIE	NT NR / INTEG	RATED SURFACE	SAMPLE / LFG	/ MIGRATION
PROGRAM STA	RT:(DATE):	427 1/1		ME: 100 8:00	
PROGRAM STO	P: (DATE):	6128 4/49	<u>6/3</u> 0 T	ME: (3/00 8:00	)
PUMP FLOW	CALIBRATI	ON TESTS:			
	POTO	METER READING	BUBBLE	AVERAGE FLOW	
	BAG	ON BAG OFF	DIS. VOL (∞)	TIME FLOW (SEC) (cc/mm)	( ∞ / min )
PROGRAM START	(1)	10-	3	18.24 9.87 19.07 9.44	9.65
	(3) —	_/o	3	18.69 9.63	- (.0.)
	(4)				-
	(5)				•
PROGRAM STOP	(1)	9_	3	21.13 8.52	-
	(2)			18.61 7.67	- 9.38
	(3)		_3	18.09 9.95	-
	(4)				- ]
	(5) —		<del></del>		-
SAMPLE A	ANALYSIS:	ATTACHMENT 1 VINYL CHLORIDE METHANE FIXED GASES OTHER	>	DETECTION LIMITS  AIR/LFG  AIR/LFG  AIR/LFG  AIR/LFG	SAMPLE AVERAGE FLOW 0c/mm
BATTERY	CHECK: [	Jók □ LOV		LEAK CHECK	<b>]</b> ок
OBSERVA	TIONS: F	PROGRAM START:	wort Sur	y Overca	st u) s wind
	-	PROGRAM STOP:	Rotomesk	ball was sh	vek -

PERSONNEL: .		DE	Μ	s	AMPLE I, D. NU	MBER:	A-A91 30
JOB NUMBER:		6366	5042.00		G NUMBER:		<u> </u>
SAMPLE LOCA	TION: _	DIRECT	CLUMM - DOW	E	QUIPMENT L	). NUMBER: _	
SAMPLE STATI	ON NUMB	er: <u>-3</u>	<u> </u>	o	THER:		
SAMPLE T	YPE:	AMBIENT AIR	R / INTEG	PATED SUPFACE	SAMPLE	/ LFG /	MIGRATION
PROGRAM STA	RT: ( DAT	E): #		1/28/1 6/21.			
PROGRAM STO	XP: (DAT	E):	leter !	11/29/6/30	ME: SIA	1:00	
PUMP FLOY	W CALIE	BRATION T	ESTS:	/°			
		POTOMETER	READING	BUBBU	FLOW METE	R	AVERAGE FLOW
		BAG ON	BAG OFF	DIS. VOL (∝)	TIME (SEC)	FLOW (cc/mm)	( ∞ / min )
PROGRAM START	(1)		10	_3	18.36	4.80	
	(2)		9_		21.18	9.50	9.05
	(3)		9		<u>20.3z</u>	8.86	7. • •
	(4)						
	(5)			•	_		
PROGRAM STOP	(1)		9	3	19.33	9.31	
	(2)		/0	25	17.93	10.04	9.38
	(3)		4	3 .	20.5		1. 20
	(4)						
	(5)						
SAMPLE	ANALYS	 V	COMPOUNDS	>	DETECTION LI	IMITS	SAMPLE AVERAGE FLOW comm
		Mi Fi	ETHANE XED GASES THER		AIR/LFG AIR/LFG AIR/LFG		9.22
BATTERY	CHECK	: 🗆 OK	LOV	v	LEAK	CHECK []	OK
OBSERVA		PROGR	· · · · · · · · · · · · · · · · · · ·	laan + 5	1 1/2	Change d Trenuch	safferes — t rostented
		PROGR	RAM STOP: _	Sunny			
12 / 88							

PERSONNEL: JOB NUMBER:		EM ES OYZ			MPLE L D. NUM 3 NUMBER:	MBER:/_/3	-30
SAMPLE LOCAT			- DOWN	7	XUIPMENT L.D.	NUMBER:	
SAMPLE STATIC					HER:		
SAMPLE T	YPE:	MBIENT AI	3 / INTEGR	PATED SURFACE	SAMPLE /	LFG /	MIGRATION
PROGRAM STA	RT: ( DATE	): <u>Cef</u>	27 4/2/		ME: 370a	8:00	
PROGRAM STO	P: (DATE	:): <u>- Let</u>	28 6/21	<u>2 6/3</u> 0 п	ME: Brock	8:00	<del></del>
PUMP FLOW	V CALIB	RATION T	ESTS:				
		ROTOMETE	R READING	BUBBLE	FLOW METER	l	AVERAGE FLOW
		BAG ON	BAG OFF	DIS. VOL (∞)	TIME (SEC)	FLOW (cc/mm)	( ∞ / min )
PROGRAM START	(1)		10+ 10+	3 3 3	18.93 18.07	9.33	9.65
	(3) (4) (5)						
PROGRAM STOP	(1) (2) (3)			_3 _3	18.47 18.98 17.36		9.84
	(4)						
SAMPLE A	MALYSI	VIII MI FI	COMPOUNDS ITACHMENT 1 NYL CHLORIDE ETHANE ETHANE XED GASES THER	>	ETECTION LIN (AIR/LFG AIR/LFG AIR/LFG	ITS	SAMPLE AVERAGE FLOW cc/mm
BATTERY	CHECK:	OK	LOW	<i>,</i>		HECK [	
OBSERVA	TIONS:	PROGR	AM START: 🧲	lear & Bu	Ry C	Over Cag	+ w/swind
		PROGR	IAM STOP:				

PERSONNEL: DEM SAMPLE L D. NUMBER: 23-1  JOB MUMBER: 5388042 BAG NUMBER: EQUIPMENT L D. NUMBER: SAMPLE STATION NUMBER: 7B OTHER:  SAMPLE TYPE: AMBIENT AIR / INTEGRATED SURFACE SAMPLE / LFG / MIGRATION									
PROGRAM STAF PROGRAM STOF	TT:(DAT	E):	4/30	тт	ME: 8:00 ME: 8:00	g / MIGNATION			
	<u> </u>	ROTOMETE		BUBBLE	FLOW METER	AVERAGE FLOW			
		BAG ON	BAG OFF	DIS. VOL	TIME FLO	. 1 (00/min)			
PROGRAM START	(1) (2) (3) (4) (5)		9 9 9-	3 3 3	18.67 9.3 19.26 9.3 19.11 9.3	S. 5.53			
STOP	(1) (2) (3) (4) (5)		10 10	3 3 3	19.43 9.3 18.40 9.6 18.69 9.6	78 9.52			
SAMPLE A	NALYS	VI M Fi	COMPOUNDS  TTACHMENT 1  NYL CHLORIDE  ETHANE  XED GASES  THER	> C	ETECTION LIMITS  AIB / LFG  AIR / LFG  AIR / LFG  AIR / LFG	SAMPLE AVERAGE FLOW 00/mm			
BATTERY	CHECK	: OH	LOW		LEAK CHECK	OK			
OBSERVA	TIONS	PROGR	IAM START: O	verces t					
		PROGR	RAM STOP:	ver cus-					

PERSONNEL: _ JOB NUMBER: SAMPLE LOCAT SAMPLE STATIC SAMPLE TO PROGRAM STAF	ON:	SOYZ DIZ - ER:  AMBIENTAI	A / INTEG	BAG EQU OTH	SAMPLE AE: 8		A-Zao / MIGRATION
PUMP FLOW	<del></del>	RATION T	<del></del>	DI IRRI E I	LOW METER	<del></del>	AVERAGE FLOW
		BAG ON	BAG OFF	DIS. VOL	TIME (SEC)	FLOW (cc/mm)	(cc/min)
PROGRAM START PROGRAM STOP	(1) (2) (3) (4) (5)		10 9 10 10	3 3 3 3	18.65 20.41 18.29 14.63 14.63	9.65	5.44 10.14
	(3) (4) (5)			7 .	12.51	10.28	
SAMPLE A	<u></u> _	VII MI FI	COMPOUNDS TTACHMENT 1 NYL CHLORIDE ETHANE XED GASES THER	>	ETECTION LIN AUB/LFG AIR/LFG AIR/LFG AIR/LFG	AITS	SAMPLE AVERAGE FLOW &/mm
BATTERY				Ovencast		онеск 🗗	OK
		PROGR	IAM STOP:	Overcast			

PERSONNEL: .	· t	2EM	<u></u>	s	MPLE L.D. NUI	MBER: 1.0	4-1		
JOB NUMBER:	63	8804	ح	ВА	G NUMBER:				
SAMPLE LOCA	TION: _	24 H	1 - Dowl	<u>)                                    </u>	QUIPMENT L.D.	NUMBER:			
SAMPLE STATI	ON NUMBE	ER:	LA	01	OTHER:				
SAMPLE T	YPE: (	MBIENT A	B / INTEG	PATED SURFACE	SAMPLE /	LFG /	MIGRATION		
PROGRAM STA	PT: ( DATE	):	6/30		me: <u>S</u> :				
PROGRAM STO	P: (DATE	:):	2/1		ME: _ 8:0	70			
PUMP FLOY	W CALIB	RATION T	ESTS:						
	POTOMETER READING				BUBBLE FLOW METER				
		BAG ON	BAG OFF	DIS. VOL (∞)	TIME (SEC)	FLOW (cc/mm)	( ∞ / min )		
PROGRAM START	(1)		9	3	21.13	8-52			
VIAII	(2)		10	3	18.61	9.67	G 217		
	(3)		10	3	18.09	9.95	9.38		
	(4)								
	(5)								
PROGRAM					19.74				
STOP	(1)		#0 9	_3	- 12. 2	9.12			
	(2)		\$ 7	3	<u> 1934</u>	10.24	9-28		
	(3)		10-7	3,	1504	9.39			
	(4)			<del></del>					
	(5)			<del></del>					
SAMPLE A	ANALYSI	<b>5</b> :	COMPOUNDS	(	DETECTION LIM	nts	SAMPLE AVERAGE		
		AT	TACHMENT!	>	AIR JUFG		FLOW ∞/mm		
			NYL CHLORIDE ETHANE		AIR/LFG AIR/LFG		9.48		
			XED GASES THER		AIR/LFG				
BATTERY	CHECK:	OK	Low		LEAK C	HECK 7	OK		
				ـــا إ					
OBSERVA	TIONS:	PROGR	AM START:	Juny		····			
		PROGR	IAM STOP:(	Dvercust	29.	.97			

PERSONNEL: _ JOB NUMBER: SAMPLE LOCA' SAMPLE STATK	<u> </u>			BAG	SAMPLE I. D. NUMBER: 34-1  BAG NUMBER:  EQUIPMENT I. D. NUMBER:				
SAMPLE T	YPE: (	AMBIENT A	R / INTEGR	LATED SURFACE	SAMPLE	/ LFG /	MIGRATION		
PROGRAM STA PROGRAM STO PUMP FLOV	P: (DAT	E):	4/30		VIC	100			
FOMP FEOT	T CACIE	ROTOMETE	<del></del>	<b>BUBBLE</b>	AVERAGE FLOW				
		BAG ON	BAG OFF	DIS. VOL.	TIME (SEC)	FLOW (cc/mm)	(∞/min)		
PROGRAM START  PROGRAM STOP	(1) (2) (3) (4) (5) (1) (2) (3) (4) (5)		16. 10 9 10 10	3 3 3 3 3	19.33 12.93 20.57 18.46 15.29	10.04 8.77 9.75	9.37		
SAMPLE	ANALYS	A VI M	COMPOUNDS_ TTACHMENT 1 NYL CHLORIDE ETHANE XED GASES THER	> D	AIR/LFG AIR/LFG AIR/LFG AIR/LFG	MITS	SAMPLE AVERAGE FLOW cc/mm		
BATTERY	CHECK	: 🗗 🕠	⟨ □ LOW		LEAK	CHECK [	ОК		
OBSERVA	TIONS		RAM START:	Sunny	w/lin	Hewn			

PERSONNEL: _ JOB NUMBER: SAMPLE LOCA' SAMPLE STATK	110N: 24	HD2 -		8/ 6	SAMPLE L D. NUMBER:				
SAMPLE T	YPE: (AA	ABIENT AF	) / INTEGR	NATED SURFACE			MIGRATION		
PROGRAM STA	,		7/30		TIVIC,	06			
PROGRAM STO			7/1		TME:	00			
PUMP FLOY							<del></del>		
	ROTOMETER READING				E FLOW METER	AVERAGE FLOW			
	E	AG ON	BAG OFF	DIS. VOL (∞)	TIME (SEC)	FLOW (cc/mm)	( ∞ / min )		
PROGRAM START	(1) _		_/0_	3	18.47	9.75			
	(2) _		10		18.58	9.48	9.87		
	(3) _				17.36	10.37	1.0.1		
	(4) -	<del></del>				-			
	(5) _					<del></del>			
PROGRAM STOP	(1) _			_3		10.99			
	(2) _				18.62		10.12		
	(3) _		10	3.	18.56	9.40			
	(4) _			<del></del>		-			
	(5) -			<del></del>		-			
SAMPLE A	ANALYSIS	AT VIII ME FIX	TACHMENT TO STANDE THANE  KED GASES THER		DETECTION LII AIR/LFG AIR/LFG AIR/LFG AIR/LFG	WITS	SAMPLE AVERAGE FLOW oc/mm		
BATTERY	CHECK:	☐ ok	☐ row		LEAK	CHECK [	OK		
OBSERVA	TIONS:	PROGR	AM START:	Overcast					
		PROGR	AM STOP:	Duercast					

SAMPLE LOCAT	YPE: AMBIENT AIR I INTEG	SAMPLE L D. NUMBER: 2E BAG NUMBER: BAG NUMBER: EQUIPMENT L D. NUMBER: OTHER: FRATED SURFACE SAMPLE / LFG / TIME: TIME: 8 1.00	
PUMP FLOY	V CALIBRATION TESTS:	BUBBLE FLOW METER	AVERAGE FLOW
	BAG ON BAG OFF	DIS. VOL TIME FLOW (c) (SEC) (c/mm)	(∞/min)
PROGRAM START PROGRAM STOP	(1)	3 17.63 10.21 3 17.32 9.83 3 18.10 9.84	9.53 9.99
SAMPLE	ANALYSIS: COMPOUNDS  ATTACHMENT 1  VINYL CHLORID  METHANE  FIXED GASES  OTHER	DETECTION LIMITS  AIR/LFG  AIR/LFG  AIR/LFG  AIR/LFG	SAMPLE AVERAGE FLOW &/mm
BATTERY			OK
OBSERVA	PROGRAM START: PROGRAM STOP:	Summy	

PERSONNEL: JOB NUMBER: SAMPLE LOCA SAMPLE STATI		SYOY:	UP	BA	G NUMBER:	MBER: <u>4A</u> . NUMBER: _	
SAMPLE 1	YPE:	AMBIENT A	R INTEG	RATED SURFACE	SAMPLE	/ LFG /	MIGRATION
PROGRAM STA	•	,	/_		ME:		
PROGRAM STO	-		,		ME:	: 00	
PUMP FLO		ROTOMETE		DI IDDI S			1,551055000
	-			DIS. VOL	FLOW METER	FLOW	AVERAGE FLOW
		BAG ON	BAG OFF	( <b>c</b> )	(SEC)	(cc/mm)	( ∞ / min )
PROGRAM START	(1) (2) (3) (4) (5)		10	3 3	14.63 17.51	9.66 17 <u>.17</u> 10.49 10.28	10.14
PROGRAM STOP	(1) (2) (3) (4) (5)		10 9 9	<u>3</u> 3	14.16 19.64 19.95	9.91 9.16 9.02	9.07
SAMPLE	ANALYSI	VIII MI FI	COMPOUNDS ITACHMENT? NYL CHLORIDE ETHANE XED GASES THER		AIR/LFG AIR/LFG AIR/LFG AIR/LFG	ATTS	SAMPLE AVERAGE FLOW & mm
BATTERY					LEAK (	CHECK 2	ок
OBSERVA	TIONS:			Duen Cent			
		PHOGR	AM STOP: 🚄	m.y.			

PERSONNEL: _		EM		s	SAMPLE L.D. NUMBER: 19-2				
JOB NUMBER: 0388042					G NUMBER:				
SAMPLE LOCATION: 24HZ - DOWN					EQUIPMENT L.D. NUMBER:				
SAMPLE STATE	ON NUME	BER:	<u> </u>	01	HER:	<del></del>			
SAMPLE T	YPE: (	AMBIENT AL	A / INTEGE	PATED SURFACE	SAMPLE / LFG	/ MIGRATION			
PROGRAM STA	RT: (DAT	E):			ME: 9:00				
PROGRAM STO	P: (DAT	E):	7/2	TI	ME: 4:00				
PUMP FLOW	V CALIE	BRATION T	ESTS:						
		ROTOMETE	R READING	BUBBLE	FLOW METER	AVERAGE FLOW			
		BAG ON	BAG OFF	DIS. VOL (∝)	TIME FLOW (SEC) (cc/mm)	(∞/min)			
PROGRAM START	(1)		9	3	19.74 9.12				
	(2)		9	3	13.57 10.24	9.58			
	(3)		<u> </u>	3	19.17 9.39	-			
	(4)				-				
	(5)								
PROGRAM STOP	(1)		9	_ ₹	18.59 9.68				
	(2)		10		17.08 10.18	9.80			
	(3)		9	3.	18.87 9.54				
	(4)			<del></del>		.			
	(5)			-		•			
SAMPLE A	NALYS	VI M	COMPOUNDS ITACHMENT I NYL CHLORIDE ETHANE XED GASES	D	ETECTION LIMITS  AIR / LFG  AIR / LFG	SAMPLE AVERAGE FLOW &/mm			
			THER		AIR/LFG				
BATTERY	CHECK:	: <b>О</b> ок	Low		LEAK CHECK	] ок			
OBSERVA	TIONS:	PROGR	AM START:	)verces t					
		PROGR	IAM STOP:	Sumy					

PERSONNEL:	•	DEM			SAMPLE L.D. NU	MBER: 3	8A-2		
JOB NUMBER: 0398047					BAG NUMBER:				
SAMPLE LOCATION: DIR - DOWN					EQUIPMENT I. D.	NUMBER:			
SAMPLE STATI	MUM NOM	كت :BER	A	<del></del>	OTHER:				
SAMPLE T	YPE: (	AMBIENT A	A / INTEG	RATED SURFA			/ MIGRATION		
PROGRAM STA	VRT: ( DA	TE):	7/1		14770	:00			
PROGRAM STO	OP: (DA	TE):	7/2		TIME:Y	.00			
PUMP FLOY	W CALI	BRATION T	ESTS:						
		POTOMETE	R READING	8088	LE FLOW METER	₹	AVERAGE FLOW		
		BAG ON	BAG OFF	DIS. VOL (∞)	TIME (SEC)	FLOW (cc/mm)	( ∞ / min )		
PROGRAM START	(1)		[0	3	14.46	9.75			
	(2)	<del></del>	_10_	3	14,24	9.36	9.52		
	(3)		(0	3	19.04	7.45			
	(4)					-			
	(5)					-			
PROGRAM STOP	(1)		10	3	18.12	993			
	(2)		10	3	19.40	9.28	9.54		
			10	3	19.14	4.40	' ' '		
	(3)		<u> </u>						
	(4)			<del></del> -					
	(5)	<del></del>		<del></del>					
SAMPLE	ANALYS	Œ	COMPOUNDS		DETECTION LIN	AITS	SAMPLE AVERAGE FLOW comm		
			NYL CALORIDE ETHANE		AIR/LFG		9.53		
		Fi	XED GASES		AIR/LFG AIR/LFG				
		0	THER						
BATTERY	CHECK	: 🛮 OK	LOW	/	LEAK C	HECK [	OK		
OBSERVA	TIONS	: PROGR	AM START:						
		PROGR	IAM STOP:	Sunny	<u>w/h</u>	s won	$\mathcal{L}_{}$		
				meter >	29.97		_		
12 / 84			<u> </u>				<del></del>		

PERSONNEL: _ JOB NUMBER:		M 8047			SAMPLE L.D. NUMBER: 18-2 BAG NUMBER:				
SAMPLE LOCAT			-DOWN		EQUIPMENT L. D. NUMBER:				
SAMPLE STATK					HER:				
SAMPLE T	YPE:	AMBIENT A	R / INTEGR	PATED SURFACE	SAMPLE /	LFG /	MIGRATION		
PROGRAM START: (DATE): 7/1 TIME: 8:00									
PROGRAM STOP: (DATE): 7/2 TIME: 9:00									
PUMP FLOW CALIBRATION TESTS:									
		ROTOMETE	R READING	BUBBLE	FLOW METER		AVERAGE FLOW		
		BAG ON	BAG OFF	DIS. VOL (cc)		FLOW comm)	( ∞ / min )		
PROGRAM START	(1) (2) (3) (4) (5)		10	3 3 3	18.62	0.49 1.67 9.70	10.12		
PROGRAM STOP	(1) (2) (3) (4) (5)		10	3 3 3		1.64	11-29		
SAMPLE A	NALYSI	AT VII MI FII	COMPOUNDS TACHMENT 1 NYA- EMILORIDE ETHANE XED GASES THER	D	ETECTION LIMITS AIR/LFG AIR/LFG AIR/LFG AIR/LFG		SAMPLE AVERAGE FLOW cc/mm		
BATTERY CHECK: OK LEAK CHECK OK									
OBSERVA	TIONS:		AM START: <u>(</u> )						
	PROGRAM STOP: Sunnig								

PERSONNEL: JOB NUMBER: SAMPLE LOCAT SAMPLE STATIC	<u>039</u> 10N: <u>24</u>	85047 112 -	リア	SAMPLE L. D. NUMBER: 23-3  BAG NUMBER:  EQUIPMENT L. D. NUMBER:  OTHER:					
SAMPLE TYPE: AMBIENT AIR / INTEGRATED SURFACE SAMPLE / LFG / MIGRATION									
PROGRAM STAF PROGRAM STOF	RT: ( DATE ):		117 113		TME: S				
PUMP FLOW			,	·					
	<sub>1</sub>	OMETER F	<del></del>	BUBBL	FLOW METER	1	AVERAGE FLOW		
	BAC	ON I	BAG OFF	DIS. VOL	TIME (SEC)		( ∞ / min )		
PROGRAM START PROGRAM STOP	(1) — (2) — (5) — (1) — (2) — (3) — (3)		10 0 0 0 0 0 0 0	3 3 3 3	18.10	10-21 5.83 7.94 10.10 9.38 9.35	9.99		
	(4)	······································							
SAMPLE ANALYSIS: COMPOUNDS  ATTACHMENT 1  VINYL CHLORIDE  METHANE  FIXED GASES  OTHER				DETECTION LIMITS  AIR/LFG  AIR/LFG  AIR/LFG  AIR/LFG			SAMPLE AVERAGE FLOW &/mm		
BATTERY CHECK: OK LOW LEAK CHECK OK									
OBSERVA	TIONS:	PROGRAI	M START:	Clour					
	•	PROGRAI	м sтор: <u>(</u>	Qca-7					

SAMPLE LO. NUMBER: 4A-3  LOB NUMBER: DESCRIPTION DE LOCATION: DE LOCATION DE LOCATION DE LOCATION NUMBER: LA COMPANSION DE LOCATION NUMBER: LA COMPANSION DE LOCATION DE LOCATION NUMBER: LA COMPANSION DE LOCATION DEL LOCATION DE LOCATI									
PUMP FLOW CALIBRATION TESTS:  ROTOMETER READING BUBBLE FLOW METER AVERAGE FLOW									
		AG ON		DIS. VOL	FLOW METER	FLOW	AVERAGE FLOW (∞/min)		
PROGRAM START	(1) — (2) — (3) — (4) — (5) —		10 9 9	(\omega) \( \frac{3}{3} \) \( \frac{3}{3} \) \( \frac{3}{3} \)	19.64	9.9 9.16 1000	9.07		
PROGRAM STOP	(1) — (2) — (3) — (4) — (5) —		10	3	17.14	9.83 10.50 9.15	10.03		
ATTACHMENT 1 AP/LFG FLOW CO						SAMPLE AVERAGE FLOW &/mm			
BATTERY CHECK: OK LOW LEAK CHECK OK  OBSERVATIONS: PROGRAM START: Clear									
		PROGRA	um stop:	Coas					

PERSONNEL: DEM SAMPLE L D. NUMBER: LA-3  JOB NUMBER: 388042 BAG NUMBER: EQUIPMENT L D. NUMBER:  SAMPLE LOCATION: 24 HP - DOWN EQUIPMENT L D. NUMBER:  SAMPLE STATION NUMBER: LA OTHER:  SAMPLE TYPE: (AMBIENT AIR / INTEGRATED SURFACE SAMPLE / LFG / MIGRATION  PROGRAM START: (DATE): 7/2 TIME: 8:00  PROGRAM STOP: (DATE): 7/3 TIME: 8:00							
PUMP FLOW	CALIBRATIC		T				
	BAG	METER READING ON BAG OFF	DIS. VOL	FLOW METER  TIME FLOW	AVERAGE FLOW  ( \infty / min )		
PROGRAM START	(1) (2) (3) (4) (5)	10	( <b>\omega</b> )  -3  -3  -3	(SEC) (0c/mm)  (8.57 9.68  17.08 10.18  18.87 7.54	9.80		
PROGRAM	(1)	10	73 -3 -3 	17.08 10.54 17.63 10.27 17.89 10.06	1		
SAMPLE ANALYSIS: COMPOUNDS  ATTACHMENT P  VINYL CHLORIDE  METHANE  FIXED GASES  OTHER				ETECTION LIMITS  AIR/LFG AIR/LFG AIR/LFG AIR/LFG	SAMPLE AVERAGE FLOW 00/mm		
BATTERY	CHECK:	OK LO	w	LEAK CHECK	ОК		
OBSERVA	TIONS: PR	OGRAM START:_	COM				
	PF	ROGRAM STOP: _	Cica1				

PERSONNEL: , JOB NUMBER: SAMPLE LOCA SAMPLE STATI	TION: _	35804" DIR-	DOLUN	BAG	SAMPLE L.D. NUMBER: 3A-3  BAG NUMBER:			
SAMPLE T	YPE: C	AMBIENT AI	712	RATED SURFACE	SAMPLE		MIGRATION	
PROGRAM STO	•	,	7/3	<u></u>	<b>ve:</b> <u>800</u>	ري(		
PUMP FLOY	V CALII	ROTOMETE		BUBBLE I	FLOW METER		AVERAGE FLOW	
		BAG ON	BAG OFF	DIS. VOL	TIME (SEC)	FLOW (cc/mm)	(∞/min)	
PROGRAM START	(1) (2) (3) (4) (5)		10 10	3 3 3	19.12 19.40 19.14	9.13	9.54	
PROGRAM STOP	(1) (2) (3) (4) (5)		10	3 3 3	9.07 18.33 19.12	996 982 9.41	9.73	
SAMPLE ANALYSIS: COMPOUNDS  ATTACHMENT 1  VINYL CHLORIDE  METHANE  FIXED GASES  OTHER				DETECTION LIMITS  AIR/LFG  AIR/LFG  AIR/LFG			SAMPLE AVERAGE FLOW cc/mm	
BATTERY CHECK: OK LOW LEAK CHECK OK  OBSERVATIONS: PROGRAM START:								
		PROGR	AM STOP:	Jean	•			

PERSONNEL: JOB NUMBER: SAMPLE LOCAT SAMPLE STATK  SAMPLE T  PROGRAM STATE  PROGRAM STOR  PUMP FLOW	D35 TON:  ON NUMBER:  YPE:  AM  RT: (DATE):  P: (DATE):	8047 24 HR - 13 BIENT NR 1	INTEGRATE 2 3	SAMPLE L D. NUMBER: 13-3  BAG NUMBER:				
	RO	TOMETER REAL	DING	BUBBLE F	LOW METER	·	AVERAGE FLOW	
	BA	AG ON BAG	OFF	DIS. VOL (œ)	TIME (SEC)	FLOW (cc/mm)	(∝/min)	
PROGRAM START	(1) — (2) — (3) — (4) — (5) —		16	3 3	17.37	11.64	11.29	
PROGRAM STOP	(1) — (2) — (3) — (4) — (5) —	<del></del>	D	-2 -5 -3	17.11 18.29	10.19 10.52 9.84	10.18	
SAMPLE A	.NALYSIS:	ATTACH	HLORIDE IE ASES	DE	TECTION LIM AIR/LFG AIR/LFG AIR/LFG	пѕ	SAMPLE AVERAGE FLOW 00/mm	
BATTERY CHECK: TOK LEAK CHECK TOK  OBSERVATIONS: PROGRAM START: SUNNY								
		PROGRAM ST	OP: Sun	ZNUZ.				



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DATE RECEIVED: 06/21/90 DATE REPORTED: 06/27/90

PAGE 1 OF 6

LAB NUMBER: 100849

CLIENT: SCS ENGINEERS

REPORT ON: 5 AIR SAMPLES

PROJECT #: 0388042.00 LOCATION: NAS-ALAMEDA

RESULTS: SEE ATTACHED



LAB NUMBER: 100849-1 CLIENT: SCS ENGINEERS PROJECT #: 0388042.00

SAMPLE ID: 1A-21

DATE RECEIVED: 06/21/90
DATE ANALYZED: 06/22/90
DATE REPORTED: 06/27/90

PAGE 2 OF 6

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORTING
•	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.2	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference

5



LAB NUMBER: 100849-2 CLIENT: SCS ENGINEERS PROJECT #: 0388042.00 SAMPLE ID: 3B-21 DATE RECEIVED: 06/21/90
DATE ANALYZED: 06/22/90
DATE REPORTED: 06/27/90

PAGE 3 OF 6

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

•		CALDERON REPORTING
	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference

5



LAB NUMBER: 100849-3

CLIENT: SCS ENGINEERS

PROJECT #: 0388042.00

SAMPLE ID: 4A-21

DATE RECEIVED: 06/21/90

DATE ANALYZED: 06/27/90

PAGE 4 OF 6

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

•		CALDERON REPORTING
	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachioroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference

5



LAB NUMBER: 100849-4 CLIENT: SCS ENGINEERS PROJECT #: 0388042.00

SAMPLE ID: 2A-21

DATE RECEIVED: 06/21/90 DATE ANALYZED: 06/22/90 DATE REPORTED: 06/27/90

PAGE 5 OF 6

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

•		CALDERON REPORT ING
	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100849-5 CLIENT: SCS ENGINEERS PROJECT #: 0388042.00 SAMPLE ID: FIELD BLANK-21 DATE RECEIVED: 06/21/90
DATE ANALYZED: 06/22/90
DATE REPORTED: 06/27/90

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Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

	CALDERON REPORTING
Results	LIMIT
ni/L (ppb)	nl/L (ppb)
ND	2.0
ND	1.0
ND	0.8
ND	0.5
ND	0.2
ND	0.2
ND	0.6
ND	0.2
ND	0.5
ND	2.0
	ND N

ND = Not detected at or above Calderon reporting limit.

QA/QC SUMMARY

\_\_\_\_\_\_\_

Duplicate: Relative % Difference



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DATE RECEIVED: 06/22/90 DATE REPORTED: 06/28/90

PAGE 1 OF 6

LAB NUMBER: 100866

CLIENT: SCS ENGINEERS

REPORT ON: 5 AIR SAMPLES

PROJECT #: 0388042

RESULTS: SEE ATTACHED

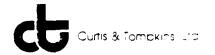
QA/QC Approval

Final Approva

Berkeley

Wilmington

Los Angeles



DATE RECEIVED: 06/22/90 LAB NUMBER: 100866-1 CLIENT: SCS ENGINEERS DATE ANALYZED: 06/25/90 DATE REPORTED: 06/28/90 PROJECT #: 0388042 PAGE 2 OF 6

SAMPLE ID: 4B-22

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5) METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORTING
•	Results	LIMIT
COMPOUND	nl/L (ppb)	ni/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	ND	0.2
1,2-Dibromo ethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon detection limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100866-2 CLIENT: SCS ENGINEERS PROJECT #: 0388042 SAMPLE ID: 2A-22

DATE RECEIVED: 06/22/90 DATE ANALYZED: 06/25/90 DATE REPORTED: 06/28/90

PAGE 3 OF 6

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

COMPOUND	Results nl/L (ppb)	CALDERON REPORTING LIMIT nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon detection limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100866-3 CLIENT: SCS ENGINEERS PROJECT #: 0388042 SAMPLE ID: 1A-22 DATE RECEIVED: 06/22/90 DATE ANALYZED: 06/25/90 DATE REPORTED: 06/28/90

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Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORTING
•	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	2.5	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	3.3	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.2	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon detection limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100866-4

CLIENT: SCS ENGINEERS

PROJECT #: 0388042

SAMPLE ID: 3B-22

DATE RECEIVED: 06/22/90

DATE ANALYZED: 06/25/90

PAGE 5 OF 6

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Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORTING
•	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachloroethene (Perchloroethylene)	0.2	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

ND = Not detected at or above Calderon detection limit.

QA/QC SUMMARY

Duplicate: Relative % Difference



LAB NUMBER: 100866-5

CLIENT: SCS ENGINEERS

PROJECT #: 0388042

DATE RECEIVED: 06/22/90

DATE ANALYZED: 06/25/90

DATE REPORTED: 06/28/90

SAMPLE ID: FIELD BLANK-22 PAGE 6 OF 6

Report on Analysis of Gas Samples for Trace Organic Constituents

CALDERON AMBIENT TESTING (CH&S Code 41805.5)
METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		CALDERON REPORTING
•	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	2.0
Dichloromethane (Methylene chloride)	ND	1.0
Trichloromethane (Chloroform)	ND	0.8
1,1,1-Trichloroethane (Methylchloroform)	ND	0.5
Tetrachloromethane (Carbon tetrachloride)	ND	0.2
1,2-Dichloroethane (Ethylene Dichloride)	ND	0.2
Trichloroethylene	ND	0.6
Tetrachioroethene (Perchloroethylene)	ND	0.2
1,2-Dibromoethane (EDB)	ND	0.5
Benzene	ND	2.0

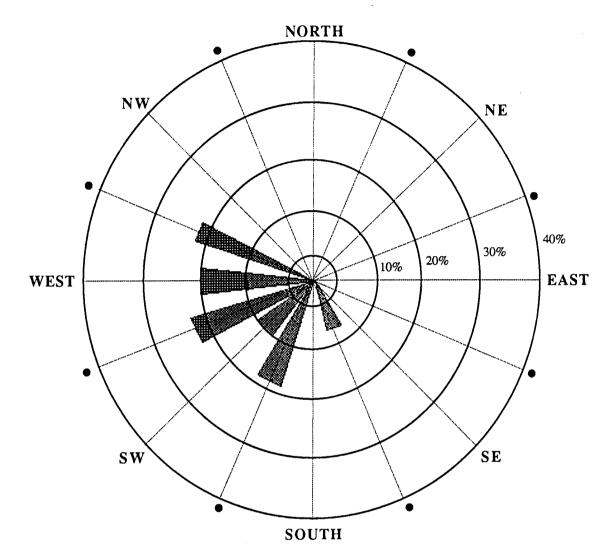
ND = Not detected at or above Calderon detection limit.

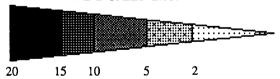
QA/QC SUMMARY

Duplicate: Relative % Difference

# APPENDIX D WIND SPEED AND DIRECTION DATA







#### NOTES:

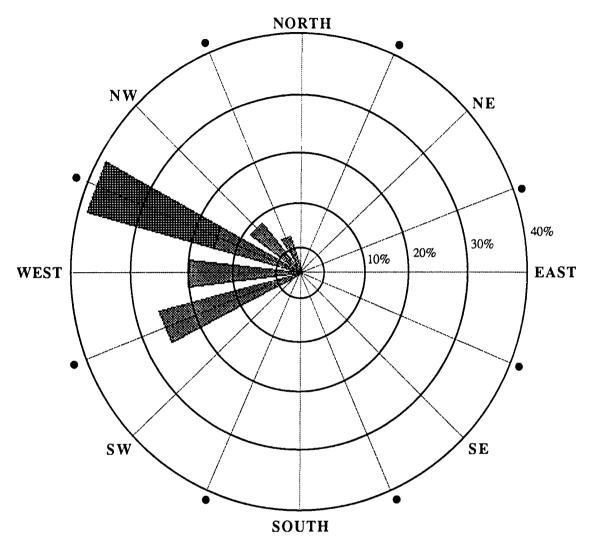
A WINDROSE DIGRAMS THE FREQUENCY OF OCCURANCE FOR EACH WIND DIRECTION. WIND DIRECTION IS INDICATED AS THE DIRECTION FROM WHICH THE WIND IS BLOWING.

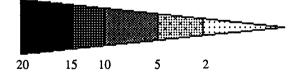
EXAMPLE - THE WIND IS BLOWING FROM THE WEST \_\_20\_\_ PERCENT OF THE TIME.

#### **WINDROSE PERIOD**

JUNE 20 thru 21, 1990 Downwind Air Sampler







#### NOTES:

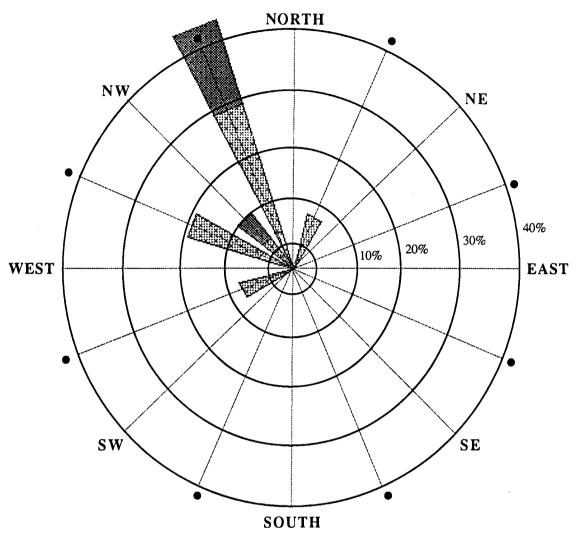
A WINDROSE DIGRAMS THE FREQUENCY OF OCCURANCE FOR EACH WIND DIRECTION. WIND DIRECTION IS INDICATED AS THE DIRECTION FROM WHICH THE WIND IS BLOWING.

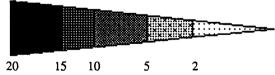
EXAMPLE - THE WIND IS BLOWING FROM THE WEST-NORTHWEST \_\_38\_\_ PERCENT OF THE TIME.

#### **WINDROSE PERIOD**

JUNE 21 thru 22, 1990 Downwind Air Sampler







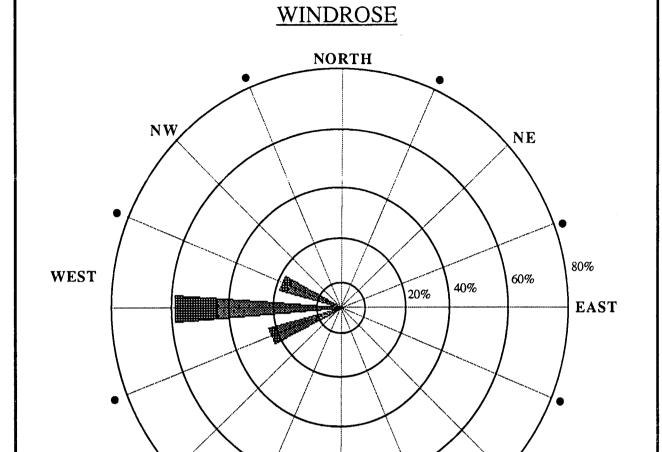
#### NOTES:

A WINDROSE DIGRAMS THE FREQUENCY OF OCCURANCE FOR EACH WIND DIRECTION. WIND DIRECTION IS INDICATED AS THE DIRECTION FROM WHICH THE WIND IS BLOWING.

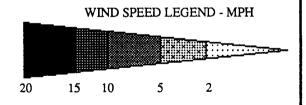
EXAMPLE - THE WIND IS BLOWING FROM THE NORTH-NORTHWEST \_\_44\_\_ PERCENT OF THE TIME.

#### **WINDROSE PERIOD**

JUNE 23 thru 24, 1990 Downwind Air Sampler



**SOUTH** 



SE

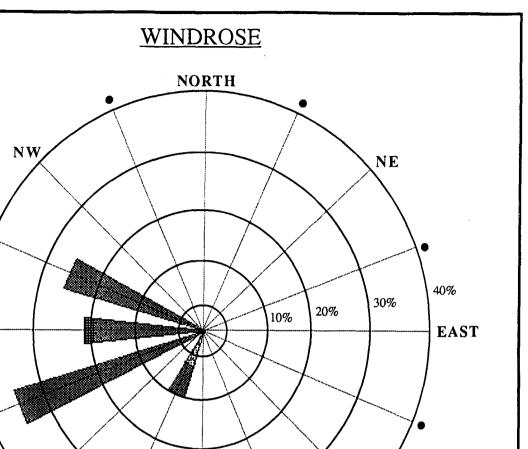
#### **NOTES:**

A WINDROSE DIGRAMS THE FREQUENCY OF OCCURANCE FOR EACH WIND DIRECTION. WIND DIRECTION IS INDICATED AS THE DIRECTION FROM WHICH THE WIND IS BLOWING.

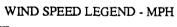
EXAMPLE - THE WIND IS BLOWING FROM THE WEST \_\_59\_\_ PERCENT OF THE TIME.

SW

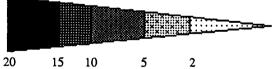
# WINDROSE PERIOD JUNE 24 thru 25, 1990 Downwind Air Sampler



**SOUTH** 



SE



#### NOTES:

**WEST** 

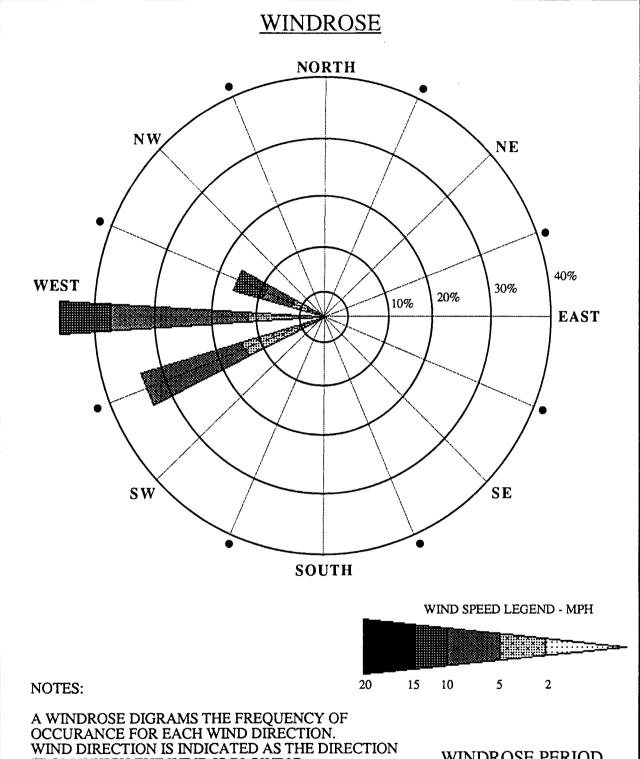
SW

A WINDROSE DIGRAMS THE FREQUENCY OF OCCURANCE FOR EACH WIND DIRECTION. WIND DIRECTION IS INDICATED AS THE DIRECTION FROM WHICH THE WIND IS BLOWING.

EXAMPLE - THE WIND IS BLOWING FROM THE WEST-SOUTHWEST \_\_35\_\_ PERCENT OF THE TIME.

#### WINDROSE PERIOD

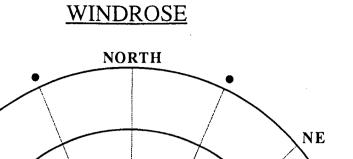
JUNE 25 thru 26, 1990 Downwind Air Sampler

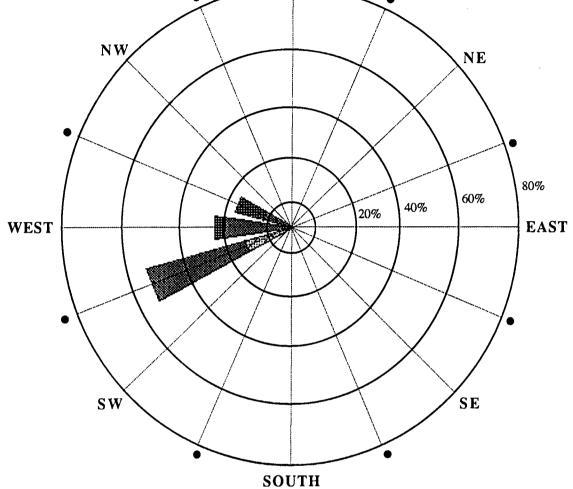


FROM WHICH THE WIND IS BLOWING.

EXAMPLE - THE WIND IS BLOWING FROM THE WEST \_\_46\_\_ PERCENT OF THE TIME.

#### **WINDROSE PERIOD** JUNE 26 thru 27, 1990 Downwind Air Sampler





WIND SPEED LEGEND - MPH

20 15 10 5 2

NOTES:

A WINDROSE DIGRAMS THE FREQUENCY OF OCCURANCE FOR EACH WIND DIRECTION. WIND DIRECTION IS INDICATED AS THE DIRECTION FROM WHICH THE WIND IS BLOWING.

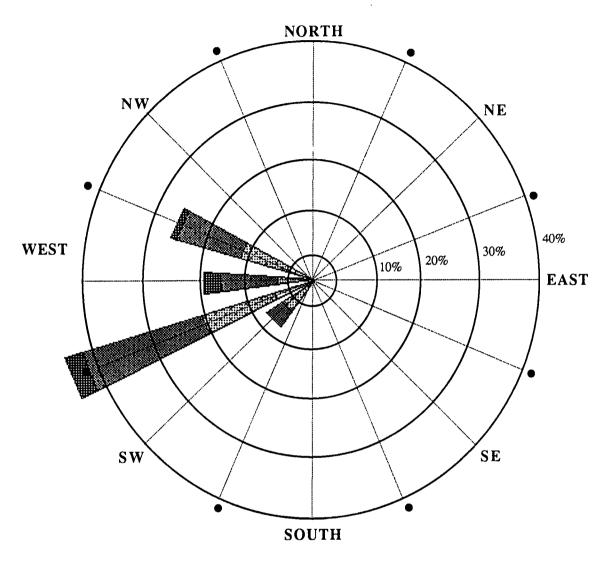
EXAMPLE - THE WIND IS BLOWING FROM THE WEST-SOUTHWEST \_\_56\_\_ PERCENT OF THE TIME.

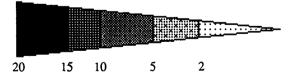
WINDROSE PERIOD

JUNE 29 thru 30, 1990

Downwind Air Sampler







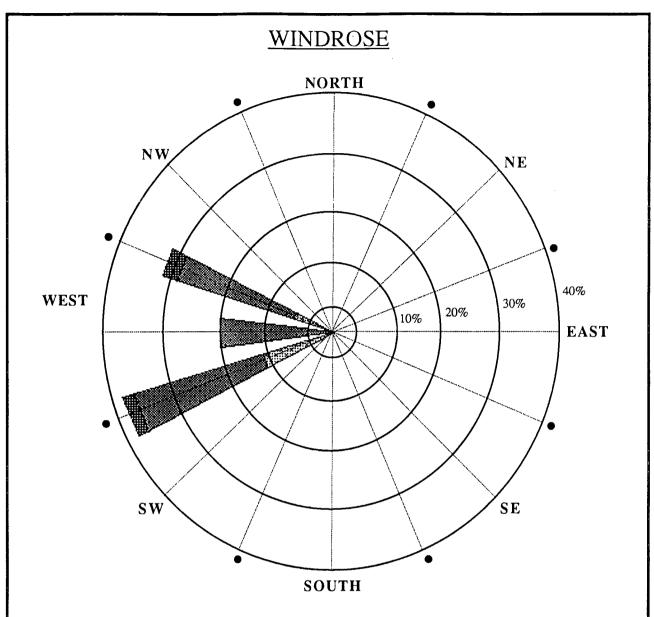
NOTES:

A WINDROSE DIGRAMS THE FREQUENCY OF OCCURANCE FOR EACH WIND DIRECTION. WIND DIRECTION IS INDICATED AS THE DIRECTION FROM WHICH THE WIND IS BLOWING.

EXAMPLE - THE WIND IS BLOWING FROM THE WEST-SOUTHWEST \_\_43\_\_ PERCENT OF THE TIME.

#### **WINDROSE PERIOD**

JUNE 30 thru JULY 1, 1990 Downwind Air Sampler



WIND SPEED LEGEND - MPH

20 15 10 5 2

**NOTES:** 

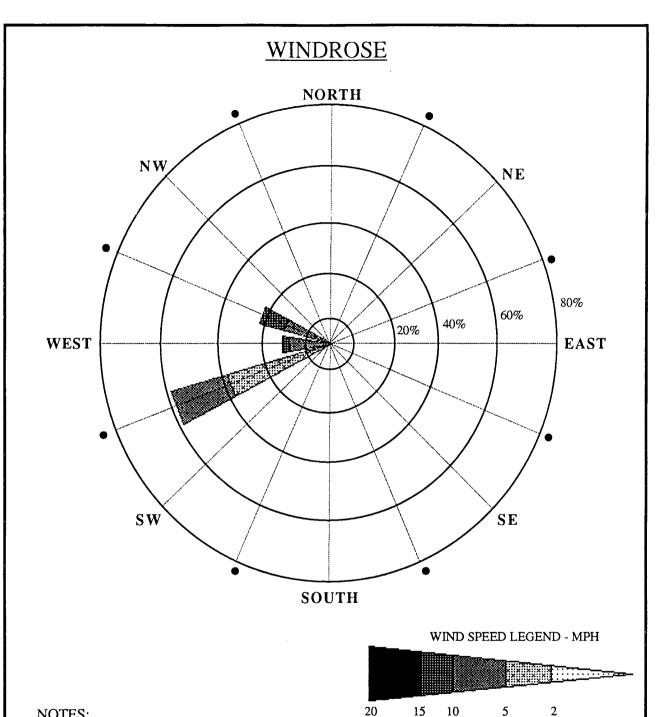
A WINDROSE DIGRAMS THE FREQUENCY OF OCCURANCE FOR EACH WIND DIRECTION. WIND DIRECTION IS INDICATED AS THE DIRECTION FROM WHICH THE WIND IS BLOWING.

EXAMPLE - THE WIND IS BLOWING FROM THE WEST-SOUTHWEST \_\_38\_\_ PERCENT OF THE TIME.

WINDROSE PERIOD

JULY 1 thru JULY 2, 1990

Downwind Air Sampler



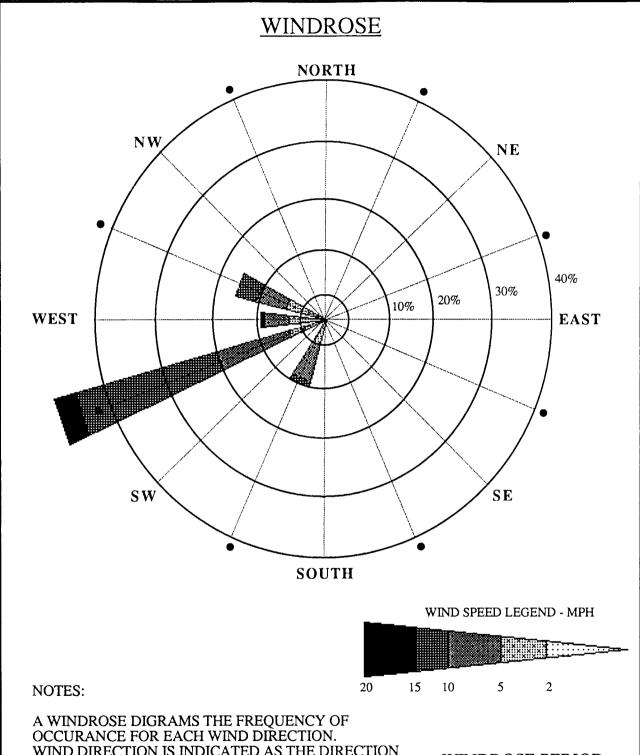
NOTES:

A WINDROSE DIGRAMS THE FREQUENCY OF OCCURANCE FOR EACH WIND DIRECTION. WIND DIRECTION IS INDICATED AS THE DIRECTION FROM WHICH THE WIND IS BLOWING.

EXAMPLE - THE WIND IS BLOWING FROM THE WEST-SOUTHWEST \_\_59\_\_ PERCENT OF THE TIME.

#### **WINDROSE PERIOD**

JULY 2 thru 3, 1990 Downwind Air Sampler

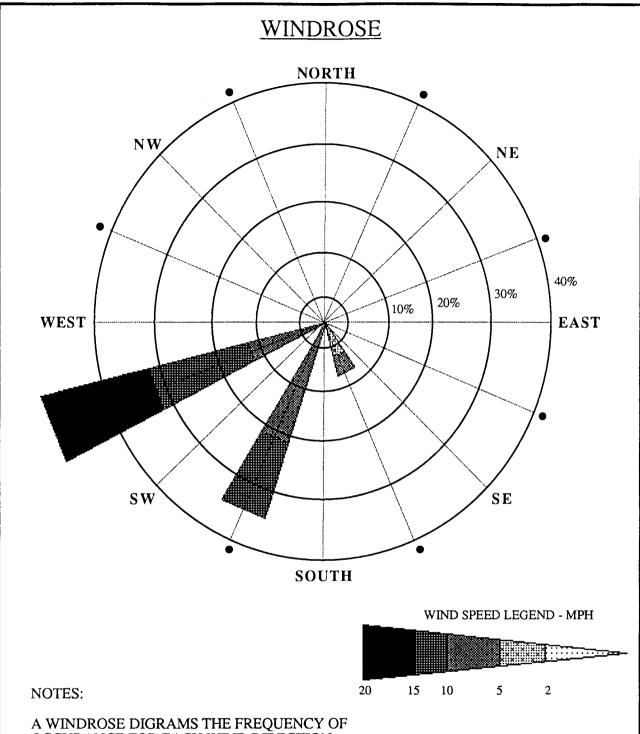


WIND DIRECTION IS INDICATED AS THE DIRECTION FROM WHICH THE WIND IS BLOWING.

EXAMPLE - THE WIND IS BLOWING FROM THE WEST-SOUTHWEST \_\_48\_\_ PERCENT OF THE TIME.

#### **WINDROSE PERIOD**

10-Day Summary Downwind Air Samplers

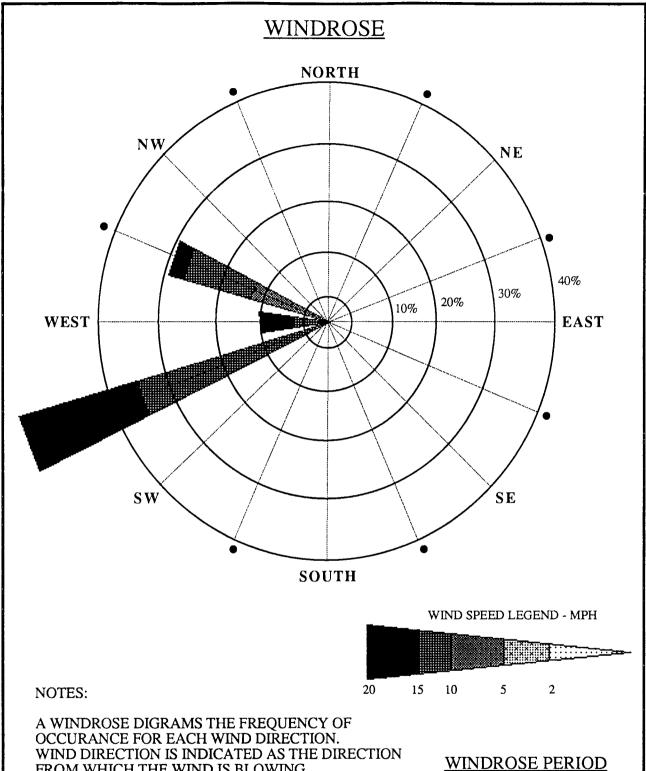


A WINDROSE DIGRAMS THE FREQUENCY OF OCCURANCE FOR EACH WIND DIRECTION. WIND DIRECTION IS INDICATED AS THE DIRECTION FROM WHICH THE WIND IS BLOWING.

EXAMPLE - THE WIND IS BLOWING FROM THE WEST-SOUTHWEST \_\_53\_ PERCENT OF THE TIME.

#### **WINDROSE PERIOD**

JUNE 20 thru 21, 1990 Upwind Air Sampler

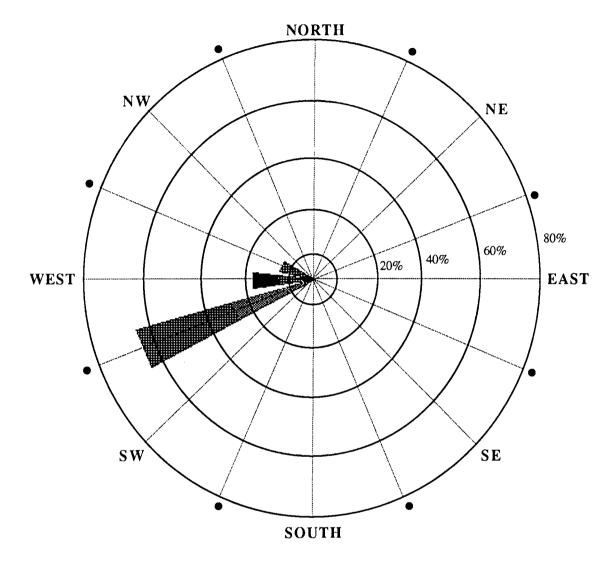


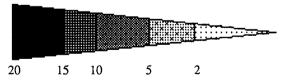
FROM WHICH THE WIND IS BLOWING.

EXAMPLE - THE WIND IS BLOWING FROM THE WEST-SOUTHWEST \_\_55\_\_ PERCENT OF THE TIME.

JUNE 21 thru 22, 1990 Upwind Air Sampler







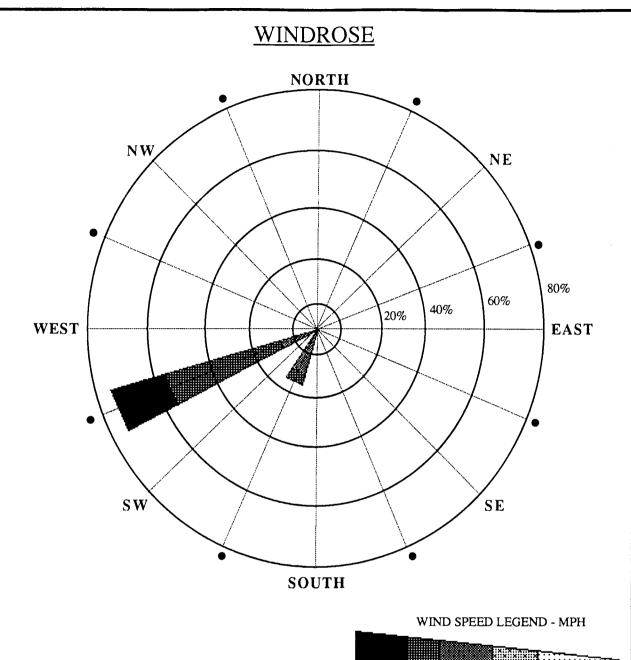
NOTES:

A WINDROSE DIGRAMS THE FREQUENCY OF OCCURANCE FOR EACH WIND DIRECTION. WIND DIRECTION IS INDICATED AS THE DIRECTION FROM WHICH THE WIND IS BLOWING.

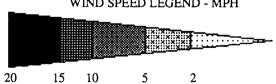
EXAMPLE - THE WIND IS BLOWING FROM THE WEST-SOUTHWEST \_\_64\_\_ PERCENT OF THE TIME.

#### WINDROSE PERIOD

JUNE 23 thru 24, 1990 Upwind Air Sampler



NOTES:

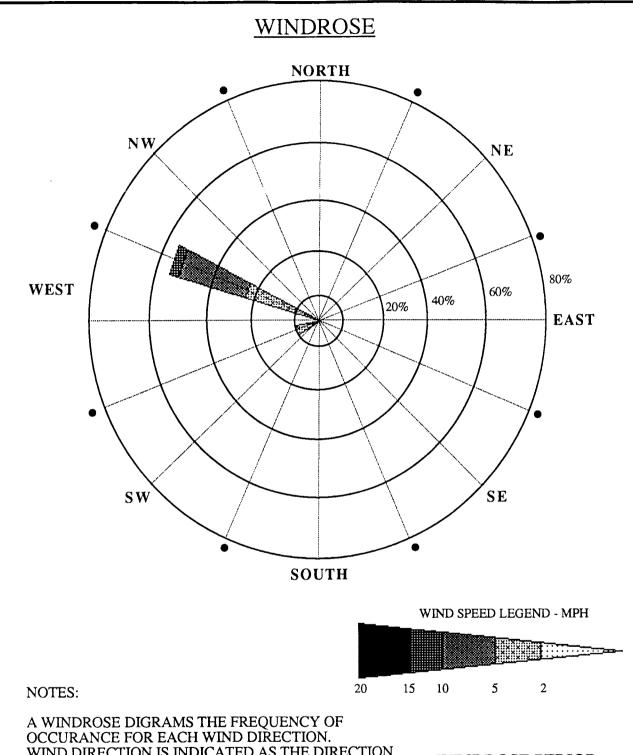


A WINDROSE DIGRAMS THE FREQUENCY OF OCCURANCE FOR EACH WIND DIRECTION. WIND DIRECTION IS INDICATED AS THE DIRECTION FROM WHICH THE WIND IS BLOWING.

EXAMPLE - THE WIND IS BLOWING FROM THE WEST-SOUTHWEST \_\_75\_\_ PERCENT OF THE TIME.

#### **WINDROSE PERIOD**

JUNE 24 thru 25, 1990 Upwind Air Sampler

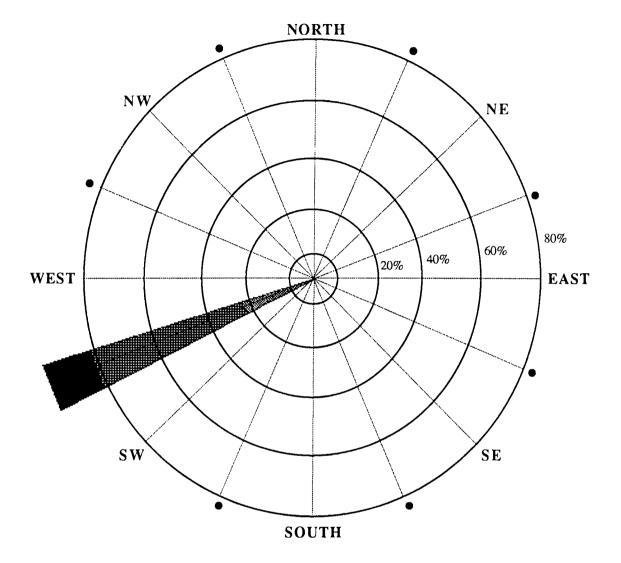


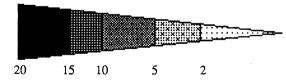
WIND DIRECTION IS INDICATED AS THE DIRECTION FROM WHICH THE WIND IS BLOWING.

EXAMPLE - THE WIND IS BLOWING FROM THE WEST-NORTHWEST \_\_55\_\_ PERCENT OF THE TIME.

**WINDROSE PERIOD** JUNE 25 thru 26, 1990 Upwind Air Sampler







NOTES:

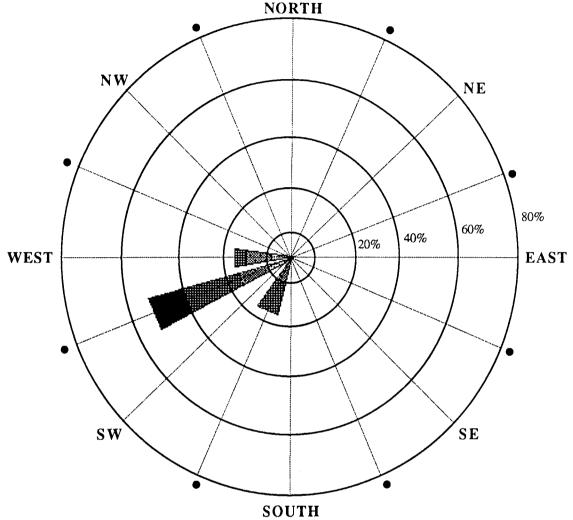
A WINDROSE DIGRAMS THE FREQUENCY OF OCCURANCE FOR EACH WIND DIRECTION. WIND DIRECTION IS INDICATED AS THE DIRECTION FROM WHICH THE WIND IS BLOWING.

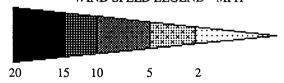
EXAMPLE - THE WIND IS BLOWING FROM THE WEST-SOUTHWEST \_\_89\_ PERCENT OF THE TIME.

#### **WINDROSE PERIOD**

JUNE 26 thru 27, 1990 Upwind Air Sampler







#### NOTES:

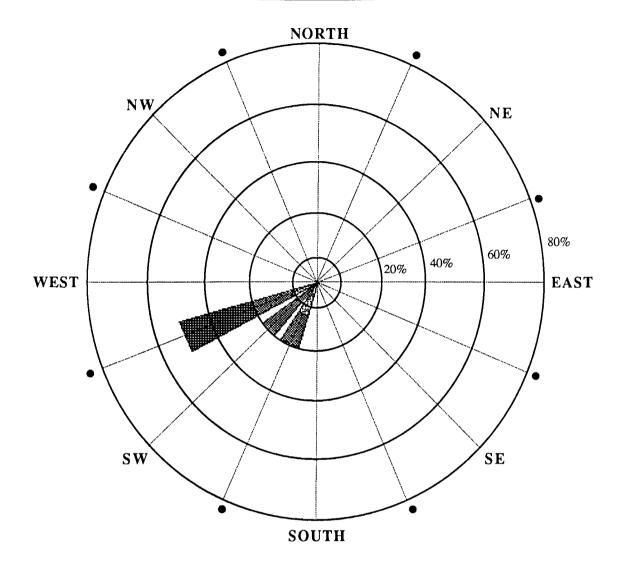
A WINDROSE DIGRAMS THE FREQUENCY OF OCCURANCE FOR EACH WIND DIRECTION. WIND DIRECTION IS INDICATED AS THE DIRECTION FROM WHICH THE WIND IS BLOWING.

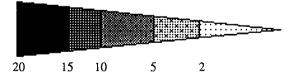
EXAMPLE - THE WIND IS BLOWING FROM THE WEST-SOUTHWEST \_\_51\_ PERCENT OF THE TIME.

#### **WINDROSE PERIOD**

JUNE 29 thru 30, 1990 Upwind Air Sampler







#### NOTES:

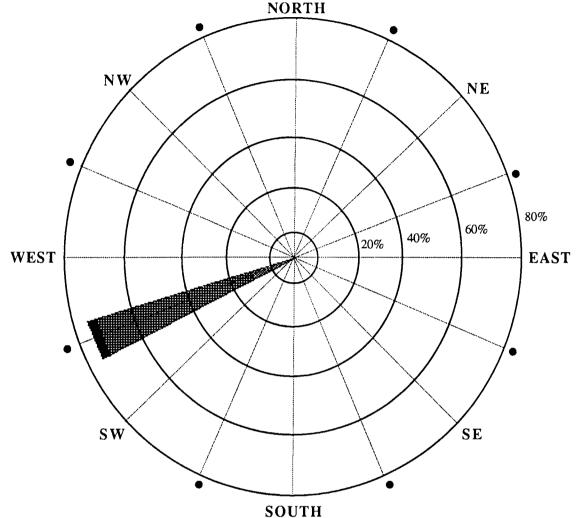
A WINDROSE DIGRAMS THE FREQUENCY OF OCCURANCE FOR EACH WIND DIRECTION. WIND DIRECTION IS INDICATED AS THE DIRECTION FROM WHICH THE WIND IS BLOWING.

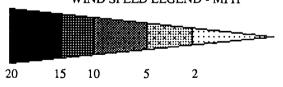
EXAMPLE - THE WIND IS BLOWING FROM THE WEST-SOUTHWEST \_\_52\_ PERCENT OF THE TIME.

#### **WINDROSE PERIOD**

JUNE 30 thru JULY 1, 1990 Upwind Air Sampler







#### NOTES:

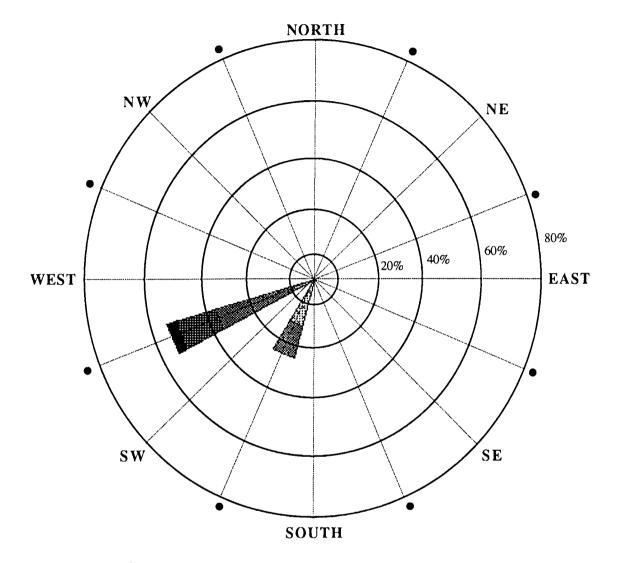
A WINDROSE DIGRAMS THE FREQUENCY OF OCCURANCE FOR EACH WIND DIRECTION. WIND DIRECTION IS INDICATED AS THE DIRECTION FROM WHICH THE WIND IS BLOWING.

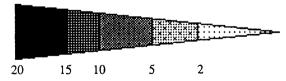
EXAMPLE - THE WIND IS BLOWING FROM THE WEST-SOUTHWEST \_\_72\_ PERCENT OF THE TIME.

#### **WINDROSE PERIOD**

JULY 1 thru 2, 1990 Upwind Air Sampler







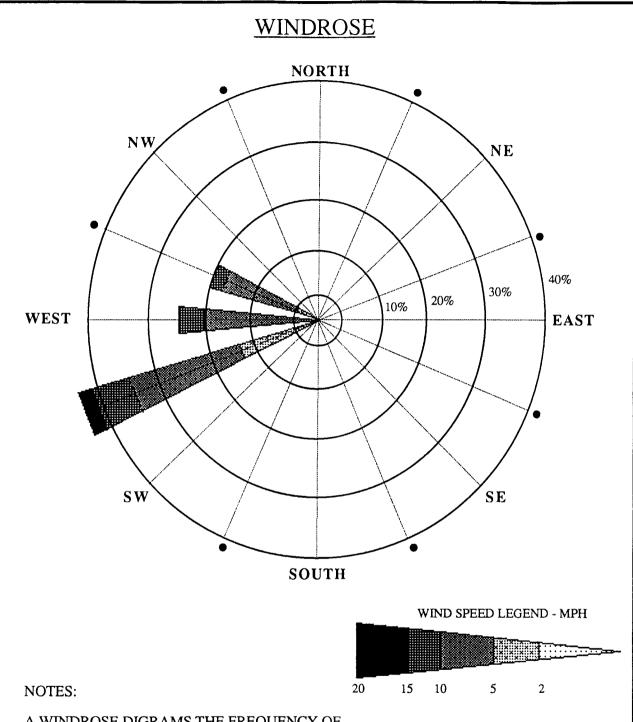
#### NOTES:

A WINDROSE DIGRAMS THE FREQUENCY OF OCCURANCE FOR EACH WIND DIRECTION. WIND DIRECTION IS INDICATED AS THE DIRECTION FROM WHICH THE WIND IS BLOWING.

EXAMPLE - THE WIND IS BLOWING FROM THE WEST-SOUTHWEST \_\_54\_ PERCENT OF THE TIME.

#### **WINDROSE PERIOD**

JULY 2 thru 3, 1990 Upwind Air Sampler



A WINDROSE DIGRAMS THE FREQUENCY OF OCCURANCE FOR EACH WIND DIRECTION. WIND DIRECTION IS INDICATED AS THE DIRECTION FROM WHICH THE WIND IS BLOWING.

EXAMPLE - THE WIND IS BLOWING FROM THE WEST-SOUTHWEST \_\_43\_\_ PERCENT OF THE TIME.

### WINDROSE PERIOD

10-Day Summary Upwind Air Samplers

### **APPENDIX E**

# LANDFILL GAS MIGRATION MONITORING FIELD DATA SHEETS AND LABORATORY ANALYTICAL REPORTS



LABORATORY NUMBER: 100968-6

DATE RECEIVED: 07/03/90 CLIENT: SCS ENGINEERS DATE ANALYZED: 07/04/90 JOB #: 0388042 DATE REPORTED: 07/16/90

SAMPLE ID: PP1-3

Report on Analysis of Gas Samples for Gross Constituents & Trace Organics

CALDERON "IN SITU" DISPOSAL SITE TESTING (CH&S Code 41805.5) METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		REPORTING
	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	500
Dichloromethane (Methylene chloride)	ND	6 0
Trichloromethane (Chloroform)	ND	2
1,1,1-Trichloroethane (Methylchloroform)	ND	10
Tetrachloromethane (Carbon tetrachloride)	ND	5
1,2-Dichloroethane (Ethylene Dichloride)	ND	2 0
Trichloroethylene	ND	10
Tetrachloroethene (Perchloroethylene)	ND	1 0
1,2-Dibromoethane (EDB)	ND	1
Benzene	ND	5 0 0
		REPORTING
GROSS GAS CONSTITUENTS	RESULTS	LIMIT
	(%)	(%)
Oxygen	21	0.2
Nitrogen	79	0.2
Carbon Monoxide	ND	0.2
Methane	ND	0.2
Carbon Dioxide	0.4	0.2

ND = Not detected at or above reporting limit.

#### QA/QC SUMMARY

	Gross	Trace
	Analysis	Analysis
Duplicate: Relative % Difference	3	<1



LABORATORY NUMBER: 100968-2

CLIENT: SCS ENGINEERS

JOB #: 0388042 SAMPLE ID: PP2-3 DATE RECEIVED: 07/03/90 DATE ANALYZED: 07/04/90

DATE REPORTED: 07/16/90

Report on Analysis of Gas Samples for Gross Constituents & Trace Organics

CALDERON "IN SITU" DISPOSAL SITE TESTING (CH&S Code 41805.5) METHOD REFERENCE: ARB Method ADDL002, Rev. 3.1, (Modified)

		REPORTING
	Results	LIMIT
COMPOUND	nl/L (ppb)	nl/L (ppb)
Chloroethene (Vinyl Chloride)	ND	500
Dichloromethane (Methylene chloride)	ND	6 0
Trichloromethane (Chloroform)	4.9	2
1,1,1-Trichloroethane (Methylchloroform)	ND	10
Tetrachloromethane (Carbon tetrachloride)	ND	5
1,2-Dichloroethane (Ethylene Dichloride)	ND	2 0
Trichloroethylene	ND	10
Tetrachloroethene (Perchloroethylene)	ND	10
1,2-Dibromoethane (EDB)	ND	1
Benzene	ND	500
		REPORTING
GROSS GAS CONSTITUENTS	RESULTS	LIMIT
	(%)	(%)
Oxygen	2 1	0.2
Nitrogen	7 8	0.2
Carbon Monoxide	ND	0.2
Me t h a n e	ND	0.2
Carbon Dioxide	0.6	0.2

ND = Not detected at or above reporting limit.

#### QA/QC SUMMARY

	Gross Analysis	Trace Analysis
Duplicate: Relative % Difference	3	<1